User Manual

MB10-VL

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English

Thank you for choosing our product. Please read the instructions carefully before operation. Follow these instructions to ensure that the product is functioning properly. The images shown in this manual are for illustrative purposes only.

For further details, please visit our Company's website www.zkteco.com.

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The product will be updated from time to time without prior notice. The latest operation procedures and relevant documents are available on http://www.zkteco.com

If there is any issue related to the product, please contact us.

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About the Company

ZKTeco is one of the world's largest manufacturer of RFID and Biometric (Fingerprint, Facial, Finger-vein) readers. Product offerings include Access Control readers and panels, Near & Far-range Facial Recognition Cameras, Elevator/floor access controllers, Turnstiles, License Plate Recognition (LPR) gate controllers and Consumer products including battery-operated fingerprint and face-reader Door Locks. Our security solutions are multi-lingual and localized in over 18 different languages. At the ZKTeco state-of-the-art 700,000 square foot ISO9001-certified manufacturing facility, we control manufacturing, product design, component assembly, and logistics/shipping, all under one roof.

The founders of ZKTeco have been determined for independent research and development of biometric verification procedures and the productization of biometric verification SDK, which was initially widely applied in PC security and identity authentication fields. With the continuous enhancement of the development and plenty of market applications, the team has gradually constructed an identity authentication ecosystem and smart security ecosystem, which are based on biometric verification techniques. With years of experience in the industrialization of biometric verifications, ZKTeco was officially established in 2007 and now has been one of the globally leading enterprises in the biometric verification industry owning various patents and being selected as the National High-tech Enterprise for 6 consecutive years. Its products are protected by intellectual property rights.

About the Manuals

This manual introduces the operations of **MB10-VL** Product.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

Features and parameters with ★ are not available in all devices.

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Document Conventions

Conventions used in this manual are listed below:

GUI Conventions

For Software	
Convention	**Description**
Bold font	Used to identify software interface names e.g. **OK**, **Confirm**, **Cancel**
>	Multi-level menus are separated by these brackets. For example, File > Create > Folder.
For Device	
Convention	**Description**
< >	Button or key names for devices. For example, press <OK>
[ ]	Window names, menu items, data table, and field names are inside square brackets. For example, pop up the [New User] window
/	Multi-level menus are separated by forwarding slashes. For example, [File/Create/Folder].

Symbols

Convention	Description
	This implies about the notice or pays attention to, in the manual
	The general information which helps in performing the operations faster
	The information which is significant
	Care taken to avoid danger or mistakes
	The statement or event that warns of something or that serves as a cautionary example.

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Safety Measures

The below instructions intend to ensure that the user can use the product correctly to avoid danger or property loss. The following precautions are to keep users safe and prevent any damage. Please read carefully before installation.

⚠ Noncompliance with instructions could lead to product damage or physical injury (may even cause death).

1. **Read, follow, and retain instructions** - All safety and operational instructions must be properly read and followed before bringing the device into service.
2. **Do not ignore warnings** - Adhere to all warnings on the unit and in the operating instructions.
3. **Accessories** - Use only manufacturer-recommended or product-sold accessories. Please do not use any other components other than manufacturer suggested materials.
4. **Precautions for the installation** - Do not place this device on an unstable stand or frame. It may fall and cause serious injury to persons and damage to the device.
5. **Service** - Do not try to service this unit yourself. Opening or removing covers may expose you to hazardous voltages or other hazards.
6. **Damage requiring service** - Disconnect the system from the Mains AC or DC power source and refer service personnel under the following conditions:
   - When cord or connection control is affected,
   - When the liquid spilled or an item dropped into the system,
   - If exposed to water or due to inclement weather (rain, snow, and more),
   - And if the system is not operating normally, under operating instructions.

   Just change controls defined in operating instructions. Improper adjustment of the controls may result in damage and involve a qualified technician to return the device to normal operation.

   And do not connect multiple devices to one power adapter as adapter overload can cause over-heat or fire hazard.
7. **Replacement parts** - When replacement parts are needed, service technicians must only use replacement parts provided by the supplier. Unauthorized substitutes can result in a burn, shock, or other hazards.
8. **Safety check** - On completion of service or repair work on the unit, ask the service technician to perform safety checks to ensure proper operation of the device.
9. **Power sources** - Operate the system only from the label's power source form. If the sort of power supply to use is unclear, call your dealer.
10. **Lightning** - Can install external lightning conductors to protect against electrical storms. It stops power-ups from destroying the system.

    Recommended installing the devices in areas with limited access.

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Electrical Safety

- Before connecting an external cable to the device, complete grounding properly, and set up surge protection; otherwise, static electricity will damage the mainboard.
- Make sure that the power has been disconnected before you wire, install, or dismantle the device.
- Ensure that the signal connected to the device is a weak-current (switch) signal; otherwise, components of the device will get damaged.
- Ensure that the standard voltage applicable in your country or region is applied. If you are not sure about the endorsed standard voltage, please consult your local electric power company. Power mismatch may cause a short circuit or device damage.
- In the case of power supply damage, return the device to the professional technical personnel or your dealer for handling.
- To avoid interference, keep the device far from high electromagnetic radiation devices, such as generators (including electric generators), radios, televisions, (especially CRT) monitors, or speakers.

Operation Safety

- If smoke, odour, or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service centre.
- Transportation and other unpredictable causes may damage the device's hardware. Check whether the device has any intense damage before installation.
- If the device has major defects that you cannot solve, contact your dealer as soon as possible.
- Dust, moisture, and abrupt temperature changes can affect the device's service life. You are advised not to keep the device under such conditions.
- Do not keep the device in a place that vibrates. Handle the device with care. Do not place heavy objects on top of the device.
- Do not apply rosin, alcohol, benzene, pesticides, and other volatile substances that may damage the device enclosure. Clean the device accessories with a piece of soft cloth or a small amount of cleaning agent.
- If you have any technical questions regarding usage, contact certified or experienced technical personnel.

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Note

- Make sure whether the positive polarity and negative polarity of the DC 12V power supply is connected correctly. A reverse connection may damage the device. It is not advisable to connect the AC 24V power supply to the DC 12V input port.
- Make sure to connect the wires following the positive polarity and negative polarity shown on the device's nameplate.
- The warranty service does not cover accidental damage, damage caused by mis-operation, and damage due to independent installation or repair of the product by the user.

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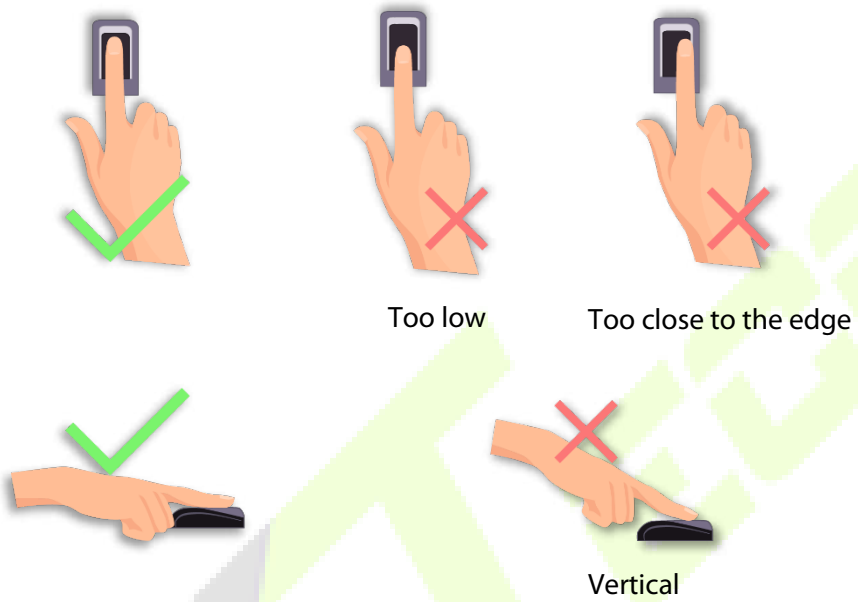
1 Instruction for Use

1.1 Finger Positioning

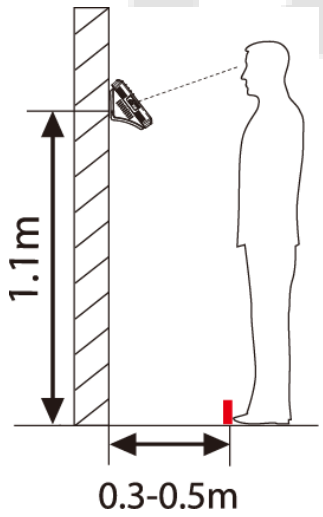
Index, middle, or ring finger are the recommended fingers to use, and avoid using thumb or pinkie as they are difficult to position correctly on the fingerprint reader and get suitable output.



Note: the recommended method when pressing your fingers onto the fingerprint reader for registration and identification. Our company will assume no liability for recognition issues that may result from incorrect usage of the product. We reserve the right of final interpretation and modification concerning this point.

1.2 Standing Position, Facial Expression and Standing Posture

- **The recommended distance**



It is recommended to have a 0.3-0.5m space between the device and the customer whose height is 1.55m to 1.85m. Users may slightly move forwards and backward to improve the quality of facial images captured.

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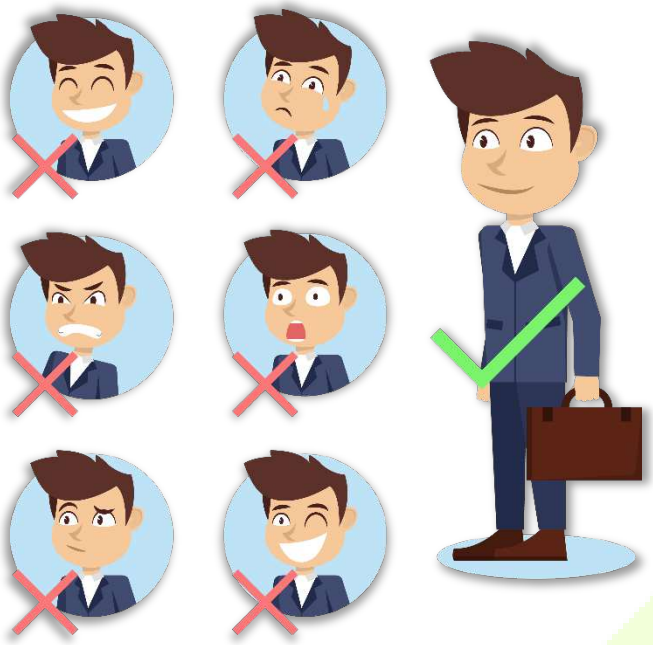
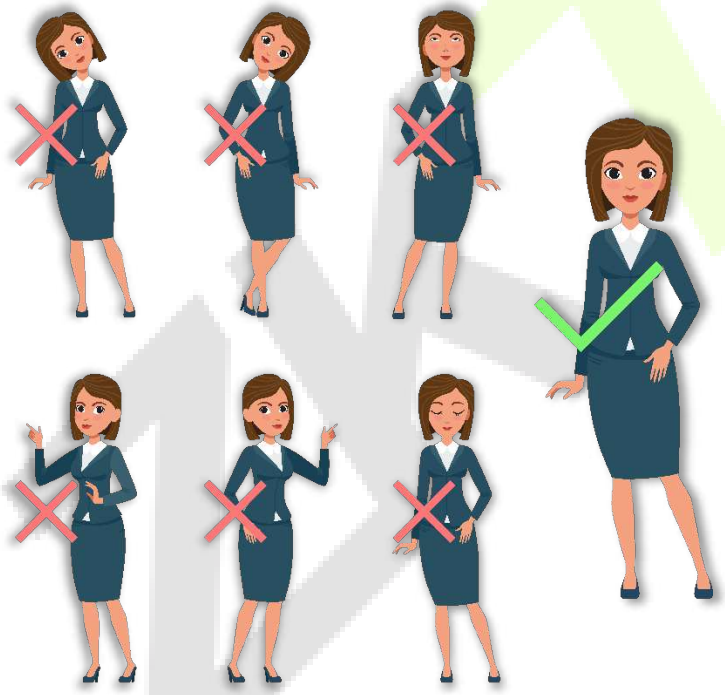
- **Facial expression**



- **Standing posture**



Note: During enrolment and verification, please remain natural facial expression and standing posture.

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1.3 Face Registration

Try to keep the face in the centre of the screen during registration. Please face the camera and stay still during face registration. The screen looks like the image below:

Correct face registration and authentication method

- **Cautions for registering a face**
  - When registering a face, maintain a 40cm to 80cm space between the device and the face.
  - Be careful not to change the facial expression. (smiling face, drawn face, wink, etc.)
  - If you do not follow the instructions on the screen, the face registration may take longer or may fail.
  - Do not cover your eyes or eyebrows.
  - Do not wear hats, masks, sunglasses, or eyeglasses.
  - Be careful not to display two faces on the screen. It may create confusion and the registration may fail.
  - A user wearing glasses should register their face both with and without glasses.

- **Cautions for authenticating a face**
  - Ensure that the face appears inside the guideline displayed on the screen of the device.
  - For a person wearing glasses, try authenticating your face with glasses if glasses were used while registering, or else authenticate without glasses if glasses were not used while registration. Otherwise, the recognition may fail or can be difficult. Also, if a different pair of glasses is used than the one used during registration, authentication can also fail. In such a case, the previously worn glasses can be used for authentication.
  - If a part of the face is covered by a hat, a mask, an eye patch, or sunglasses, the authentication may fail. Do not cover the face and allow the device to recognize the eyebrows and other features of the face.

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1.4 Verification Mode

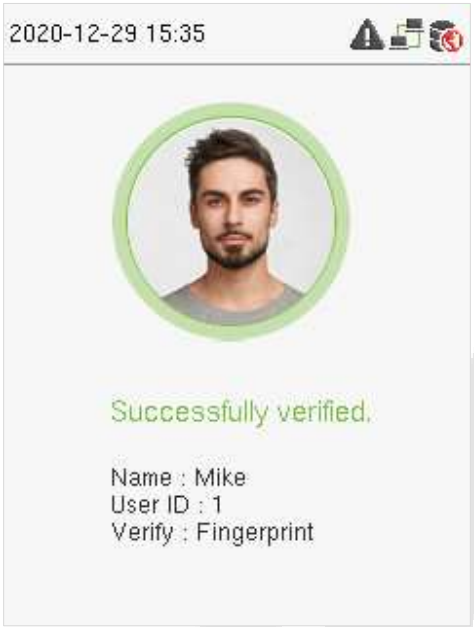
1.4.1 Fingerprint Verification

- **1: N fingerprint verification mode**

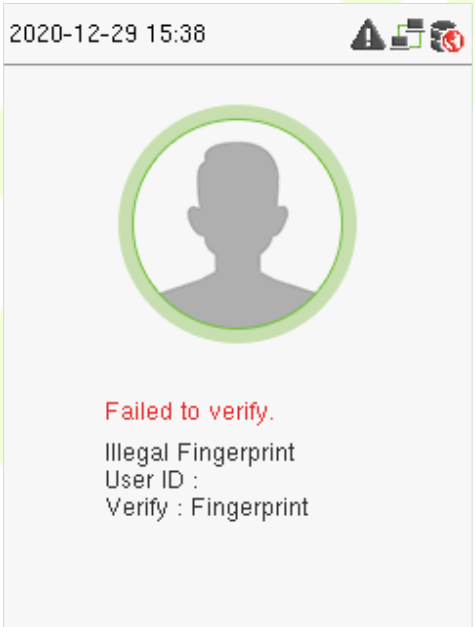
It compares the current fingerprint with all the fingerprint data that is available in the device. The device enters the fingerprint authentication mode when a user presses his/her finger onto the fingerprint scanner.

Please follow the recommended way to place your finger onto the sensor. For details, please refer to *1.1 Finger Positioning*.

The following screen displays on successful and failed verification respectively.



On successful verification



On failed verification

- **1:1 fingerprint verification mode**

It compares the current fingerprint with the linked fingerprints to the entered User ID via the virtual keyboard. Users can try verifying their identity with 1:1 verification mode if they are unable to get access with the 1:N authentication method.

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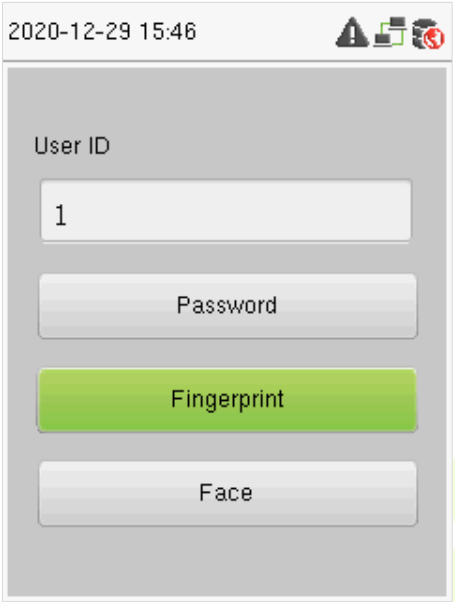
Enter the User ID on the main screen to enter 1:1 fingerprint verification mode.

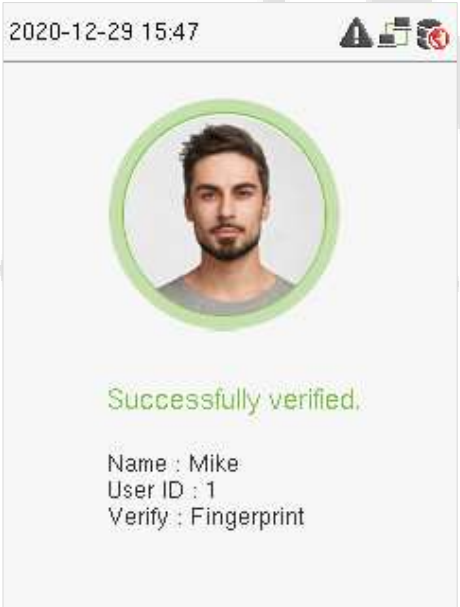
1. Enter the user ID and press [**M/OK**].

   If the user has registered a face, a password and card★ in addition to his/her fingerprints and the verification method is set to password/ fingerprint/ card★/ face verification, the following screen will appear. Select the fingerprint icon to enter fingerprint verification mode:

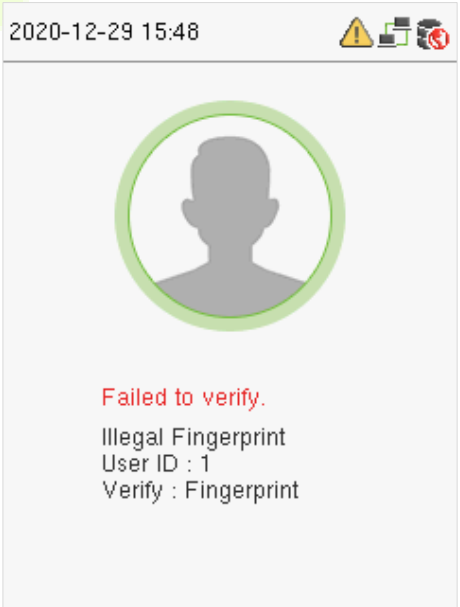


2. Press the fingerprint to verify.

   The following screen displays on successful and failed verification respectively.



On successful verification



On failed verification

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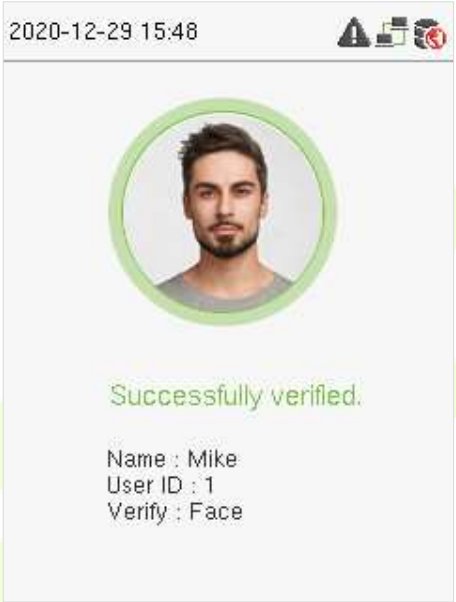
1.4.2 Facial Verification

- **1:N Facial Verification**

It compares the current acquired facial images with all the face data registered in the device. The following is the pop-up prompt box of comparison result.

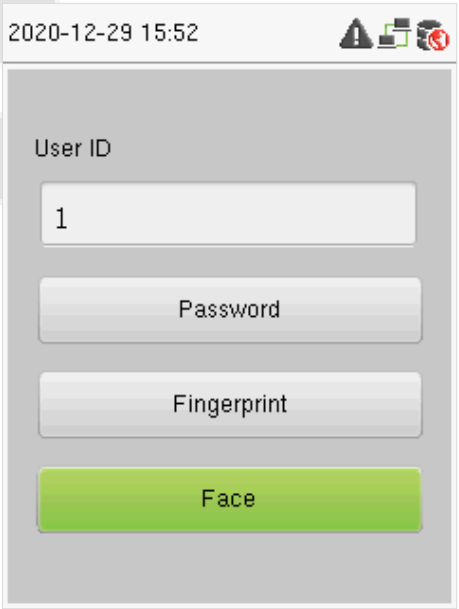


- **1:1 Facial Verification**

It compares the face captured by the camera with the facial template related to the entered user ID.

For 1:1 facial verification, enter the User ID on the main interface and enter the 1:1 facial verification mode. Enter the user ID and press [**M/OK**].

If an employee has registered a password in addition to face, the following screen will appear. Select the face icon to enter face verification mode.



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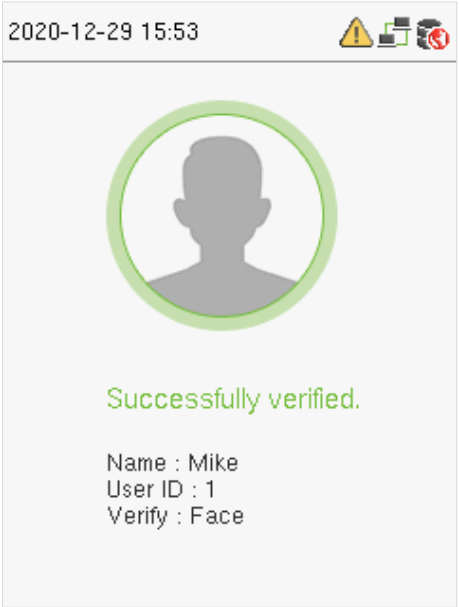
After successful verification, the following display screen appears.



If the verification fails, it prompts “Please adjust your position!”.

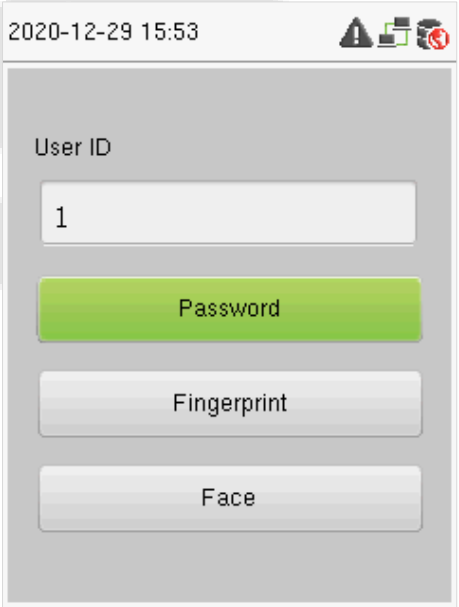
1.4.3 Password Verification

It compares the entered password with the registered User ID and password.

Enter the User ID on the main screen to enter the 1:1 password verification mode.

1. Enter the user ID and press [**M/OK**].

If an employee has registered fingerprint and face in addition to password, the following screen will appear. Select the Password icon to enter password verification mode.



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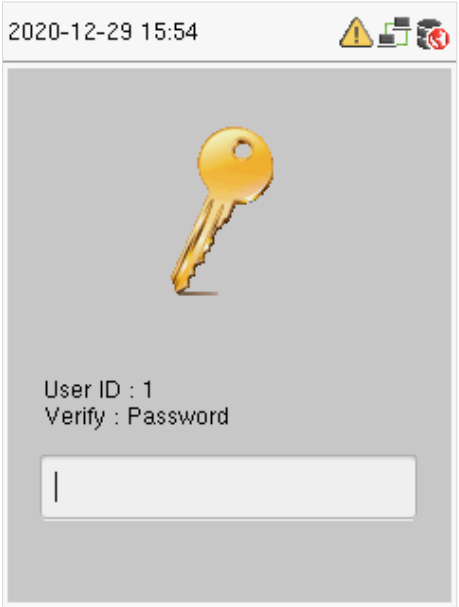
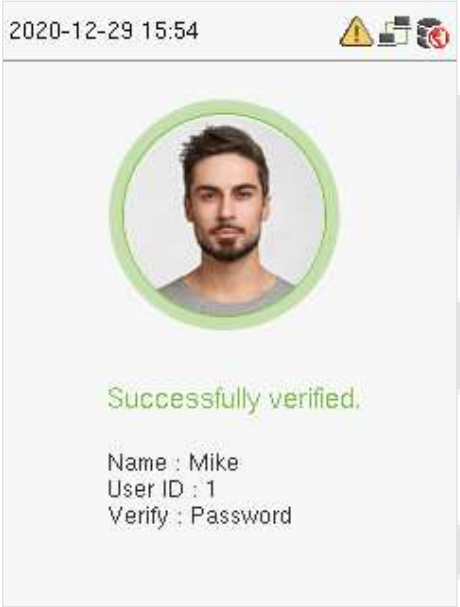
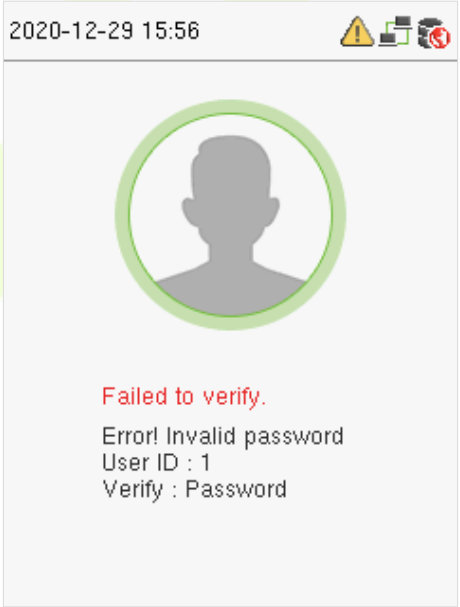
2. Input the password and press [**M/OK**].



The following screen displays on successful and failed verification respectively.



On successful verification



On failed verification

1.4.4 Card Verification★

Only the product with the card module offers the card verification function.

- **1:N Card Verification**

It compares the card number in the card induction area with all the card number data that is available in the device. The device enters the Card Verification mode when a user put his/her card on the induction area.

The following screen displays on successful and failed verification respectively.

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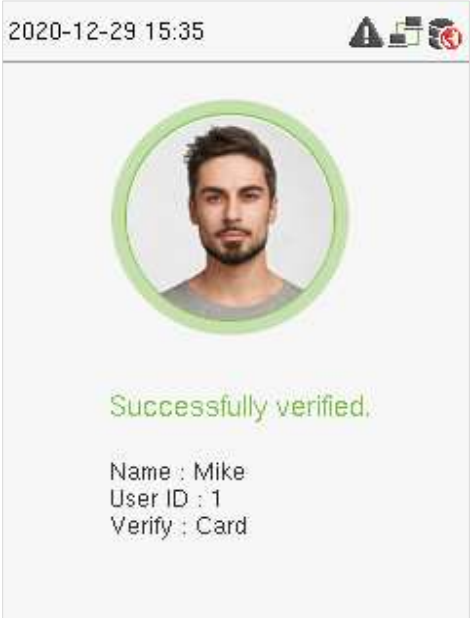
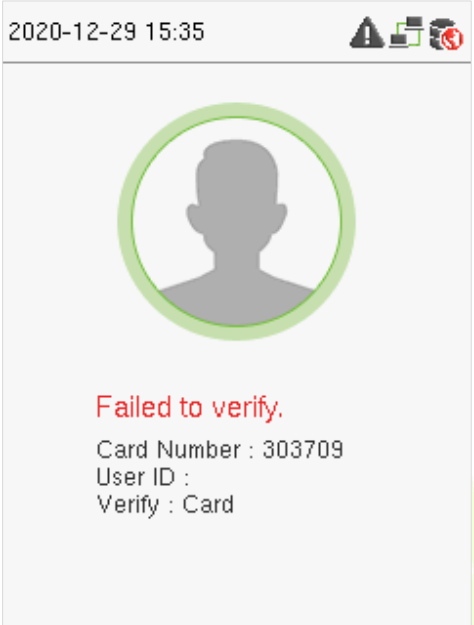


On successful verification



On failed verification

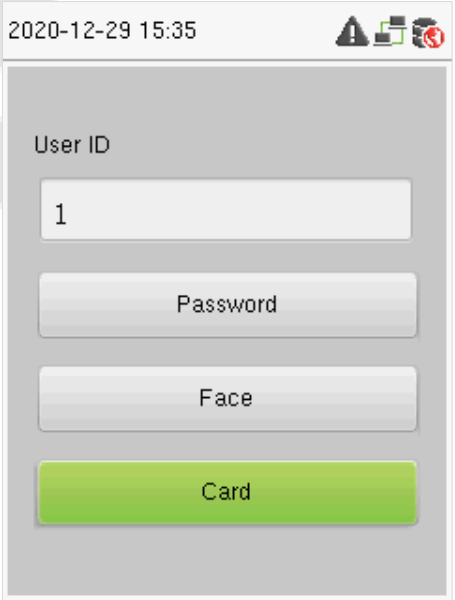
- **1:1 Card Verification**

It compares the card number in the card induction area with the number associated with the employee's User ID registered in the device. Users can try verifying their identity with 1:1 verification mode if they are unable to get access with the 1:N authentication method.

Enter the User ID on the main screen to enter 1:1 card verification mode.

1. Enter the user ID and press [**M/OK**].

   If the user has registered a face and a password in addition to his/her card, and the verification method is set to password/ fingerprint/ card★/ face verification, the following screen will appear. Select the card icon to enter card verification mode:



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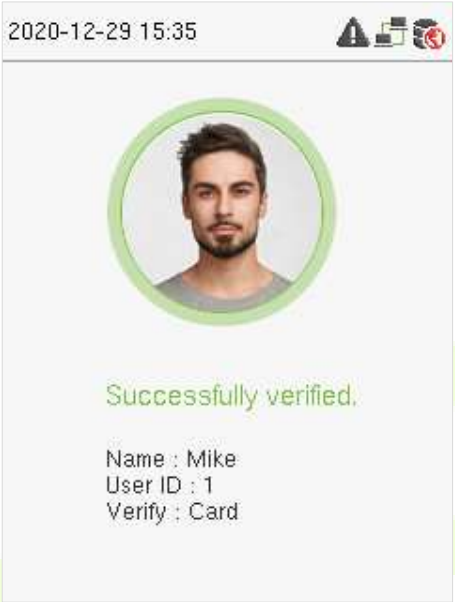
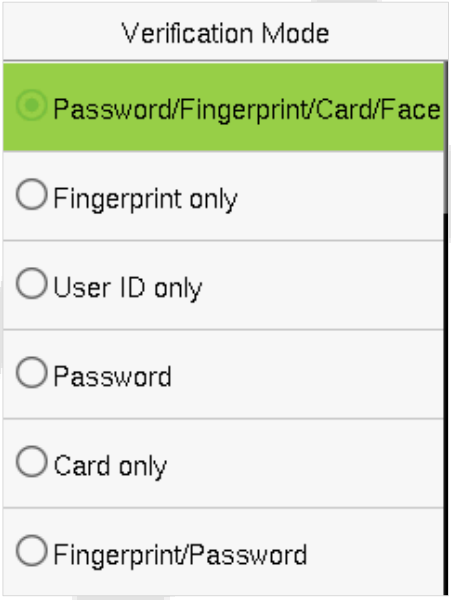
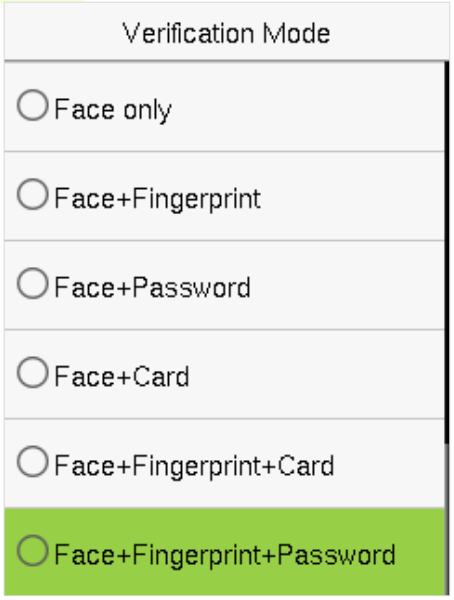
2. Place the card in the card induction area to verify. After successful verification, the following display screen appears.



1.4.5 Combined Verification

For enhanced security, this device offers the option of using multiple forms of verification methods, as shown in the picture below.





Note:

1) "/" means "or", and "+" means "and".

2) You must register the required verification information before using the combination verification mode, otherwise the verification may fail. For example, if a user uses Face Registration but the verification mode is Face + Password, then the user won't be able to pass verification.

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2 Main Menu

Click [**M/OK**] on the initial interface to enter the main menu, as shown below:

Items	Descriptions
User Mgt.	To add, edit, view, and delete basic information of a user.
User Role	To set the permission scope of the custom role and enroller, that is, the rights to operate the system.
COMM.	To set the relevant parameters of Ethernet, PC connection, wireless network★, cloud server setting and network diagnosis.
System	To set parameters related to the system, including date & time, attendance, face, fingerprint, reset and USB upgrade.
Personalize	To customize settings of interface display, including user interface, voice, bell schedules, punch state options and shortcut key mappings.
Data Mgt.	To delete all relevant data in the device.
Department	Establish the organizational structure of the department, including functions like adding, editing, or deleting the department, and scheduling the department, etc.
Shift set	Set attendance rules and the number of shifts to be used, and schedule employees. The device supports up to 24 shifts.
Report	Use USB flash drive to download the attendance statistics form to check on the computer or download the attendance settings form to set shifts on the computer, assign shifts to employees and then upload the attendance settings form. At this time, the device will give priority to the use of the schedule of the settings form.

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Access Control	To set the parameters of the lock and the relevant access control device.
USB Manager	To transfer data such as user data and attendance logs from the USB disk to the supporting software or other devices.
Attendance Search	Query the specified access record, check attendance photos, and blacklist photos.
Auto test	To automatically test whether each module functions properly, including the screen, audio, camera, and real-time clock.
System Info	To view data capacity, device, and firmware information of the current device.

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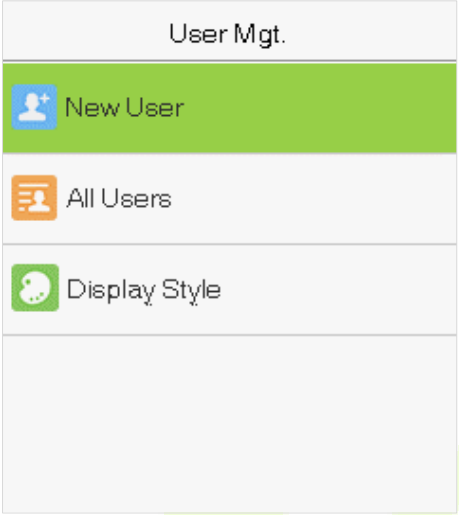
3 User Management

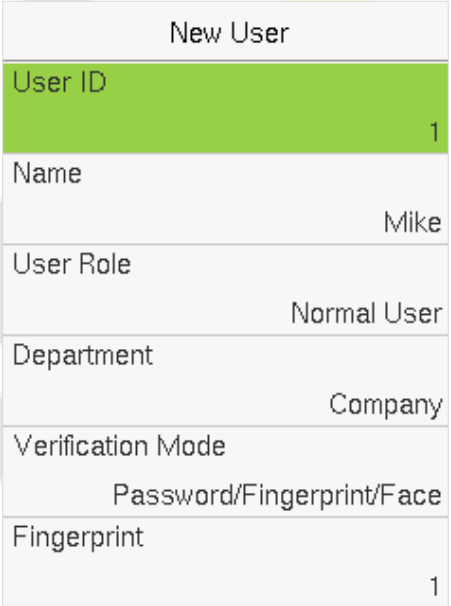
3.1 Adding Users

Select **User Mgt.** on the main menu and select **New User**.



- **Register a User ID and Name**

Enter the User ID and Name by selecting the respective options.



Note:

1) A username can contain a maximum of 17 characters.

2) The user ID may contain 1-9 digits by default.

3) You can modify your ID only during the initial registration and can't be modified later.

4) The User ID cannot be duplicated. If there is a voice prompt about duplicate User ID, then you need to choose another User ID that should be unique.

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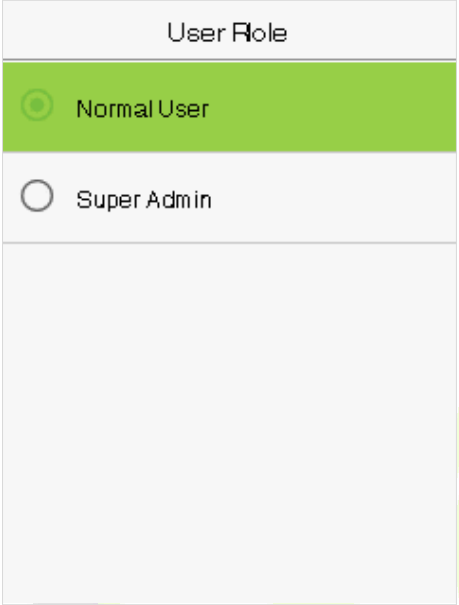
- **Setting the User Role**

There are two types of user accounts: **Normal Users** and **Super Admin**. If there is already a registered administrator, the normal users have no rights to manage the system and may only access authentication verifications. The administrator owns all management privileges. If a custom role is set, you can also select **custom role** permissions for the user.

Select **User Role** to set Normal User or Super Admin.



Note: If the selected user role is the Super Admin, the user must pass the identity authentication to access the main menu. The authentication is based on the authentication method(s) that the super administrator has registered.

- **Setting the Verification Mode**

The verification mode available in the device are:

- Password/ Fingerprint/ Card/ Face
- Fingerprint only
- User ID only
- Password
- Card only
- Fingerprint/ Password
- Fingerprint/ Card
- User ID + Fingerprint
- Fingerprint + Password
- Fingerprint + Card
- Fingerprint + Password + Card
- Password + Card
- Password/ Card
- User ID + Fingerprint + Password
- Fingerprint + (Card/ User ID)
- Face only
- Face + Fingerprint
- Face + Password
- Face + Card
- Face + Fingerprint + Card
- Face + Fingerprint + Password

Select the required **Verification Mode** to set individual verification mode for the user. Select **M/OK** to save and return to the New User interface.

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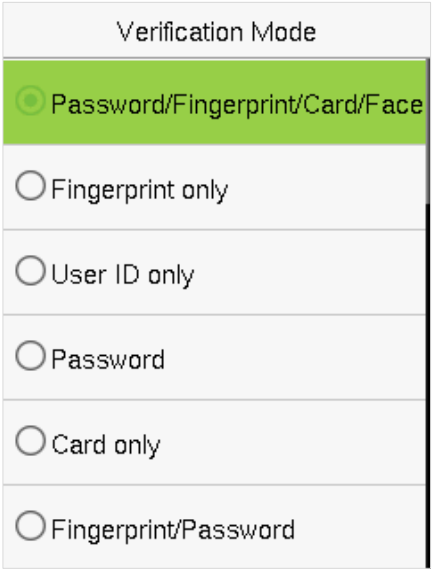
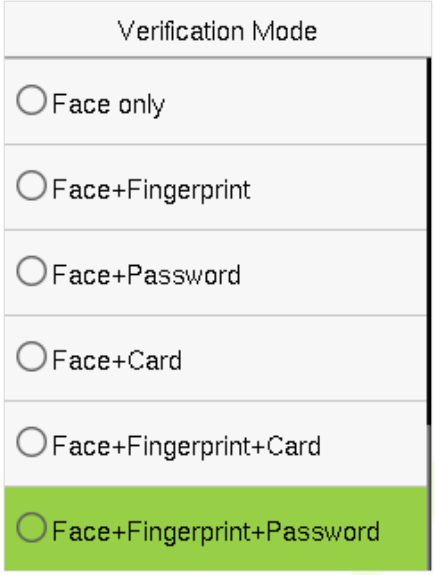
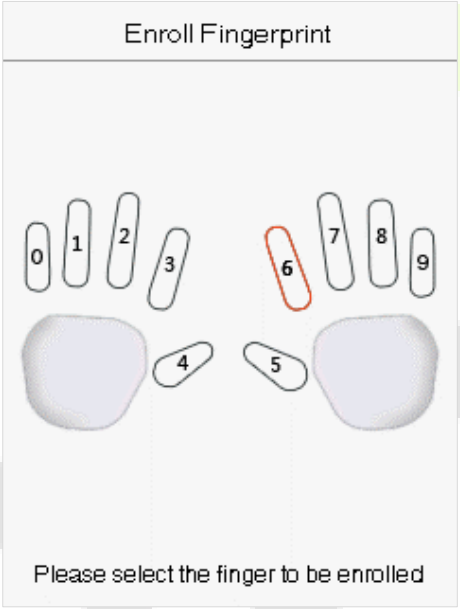




- **Register fingerprint**

Select **Fingerprint** to enter the enroll fingerprint page. Users can choose one or more fingerprint(s) to enroll.

Press the finger horizontally onto the fingerprint sensor. The registration interface is shown below:



- **Register Face**

Select **Face** on the Verification mode to enter the face registration page. Users need to face the camera such that their whole face is visible on the device's screen and all the important features of the face are visible. Then stay still for a while during face registration. The registration interface is as follows:

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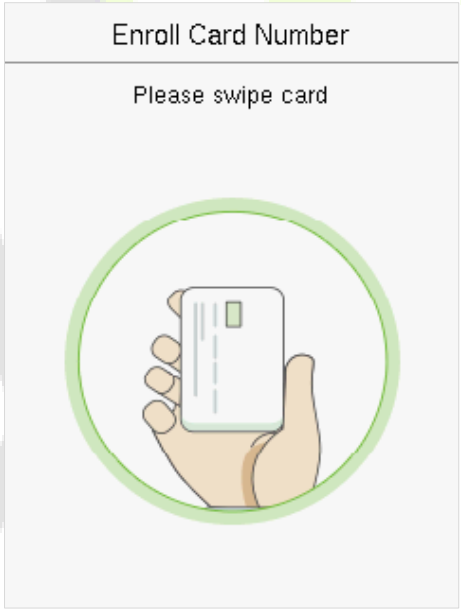
- **Register Card★**

Select **Card** on the Verification mode page to enter the card registration page. On the Card interface, swipe the card underneath the card reading area. The card registration will be successful.

If the card is registered already then, the "Duplicate Card" message shows up. The registration interface is as follows:



- **Register password**

Select **Password** on the Verification mode page to enter the password registration page. Enter a password and re-enter it. Select **M/OK**. If the two entered passwords are the same, the system will return to the New User interface.

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Note: The password may contain one to eight digits by default.

- **Register user photo**

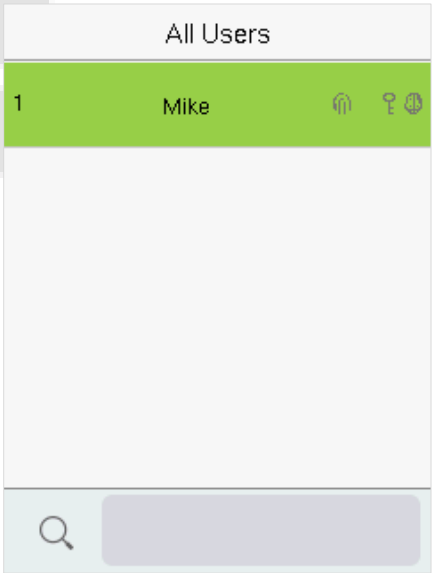
When a user registered with a photo passes the authentication, the registered photo will be displayed.

Select **User Photo**, Select **M/OK** to take a photo. Then Select **ESC** to exit and return to the New User interface.

Note: While registering a face, the system will automatically capture a picture as the user photo. If you do not want to register a user photo, the system will automatically set the picture captured as the default photo.

3.2 Search for Users

Select the **All Users** option in the **User Mgt.** Then enter the retrieval keyword in the search bar of the user list (keyword may be an ID, surname, or full name). The system will search for the users related to the entered information.



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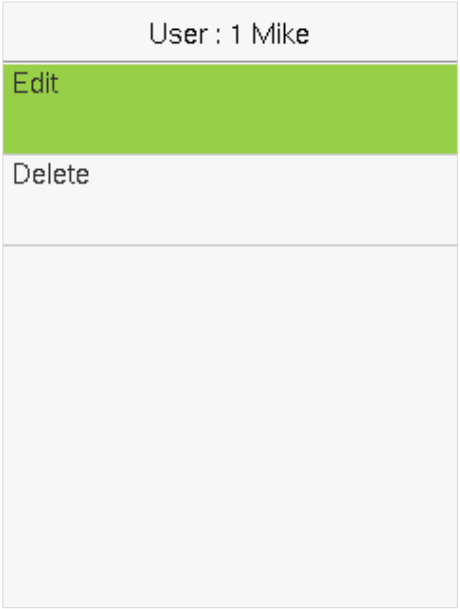
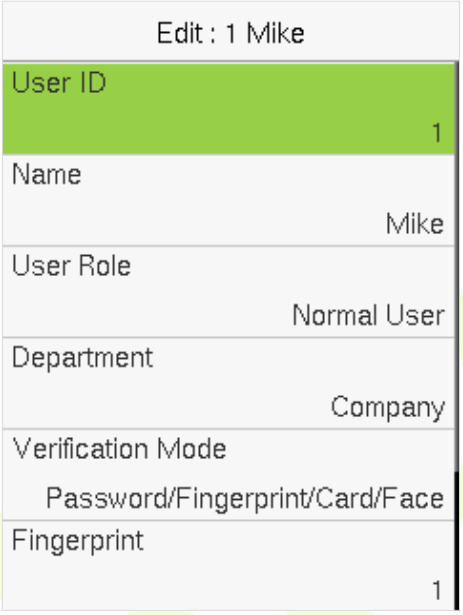
3.3 Edit Users

Choose a user from the list and select **Edit** to enter the **Edit** user interface:

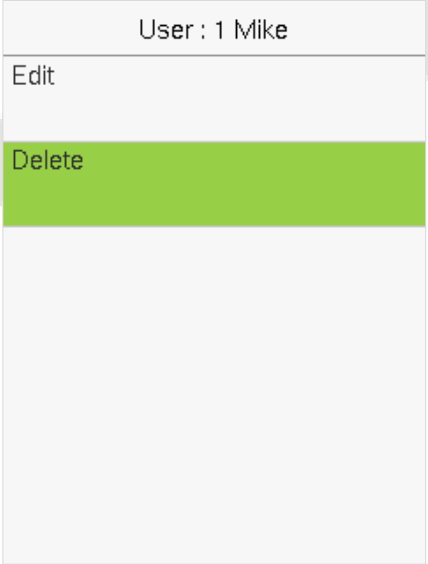


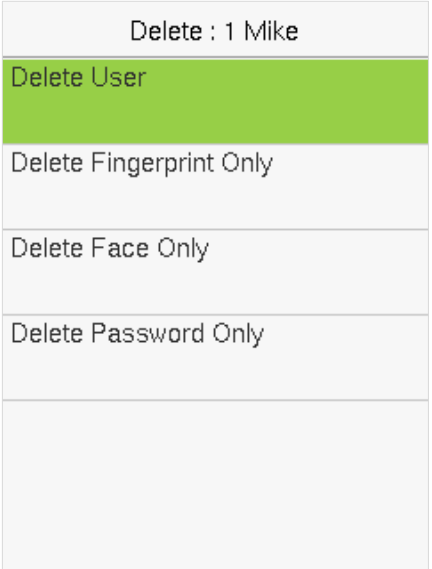


Note: The operation of editing a user is the same as that of adding a user, except that the user ID cannot be modified when editing a user's detail.

3.4 Deleting Users

Choose a user from the list and select **Delete** to enter its interface. Select the user information to be deleted and click **M/OK**.





Note:

If you select **Delete User**, all information of the user will be deleted. Only fingerprint data is removed if **Delete Fingerprint Only** is selected. Only face data is removed if **Delete Face** Only is selected. And only the password is removed if **Delete Password Only** is selected.

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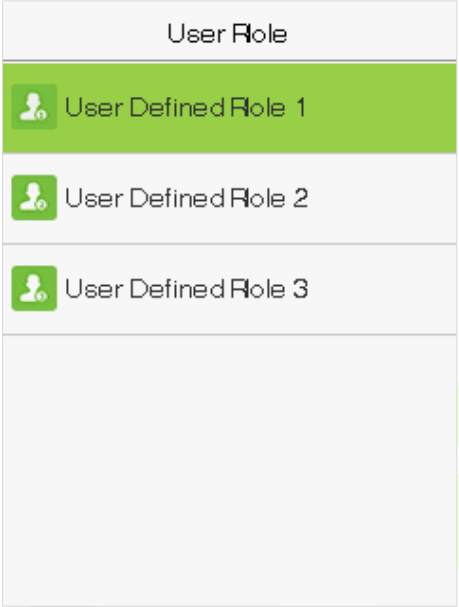
4 User Role

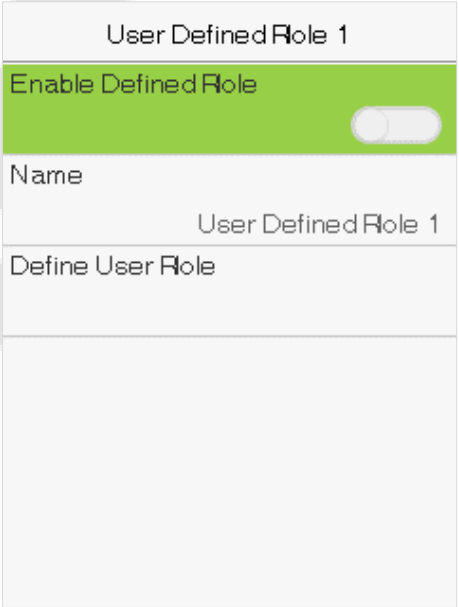
If you need to assign any specific permissions to certain users, you may edit the "User Defined Role" under the **User Role** menu.

You may set the permission scope of the custom role (up to 3 roles) and enroller.

Select **User Role** on the main menu interface.



1. Select an item to set a defined role. Select the **Enable Defined Role** option to enable this defined role. Select **Name** and enter the name of the role.



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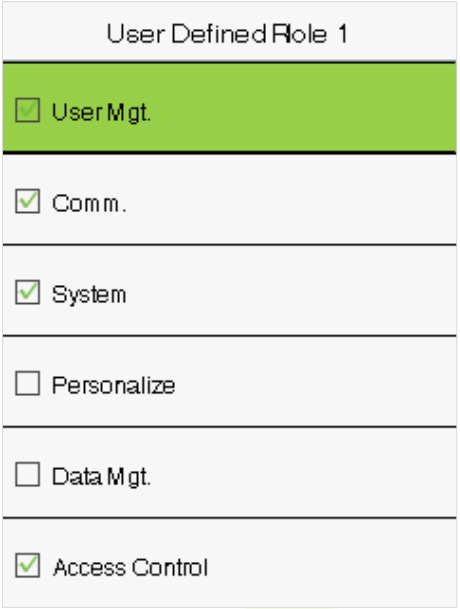
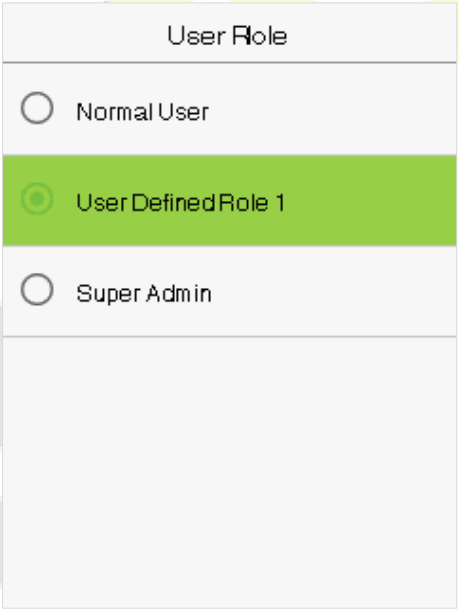
2. Select **Define User Role** to assign the privileges to the role. Click **ESC** to save and return after the privilege assignment is complete.



Note: You need to select the features in sub-menus. If the device has a role enabled, you may assign the roles you set to users by selecting **User Mgt. > New User > User Role.**



If no super administrator is registered, the device will prompt "**Please register super administrator user first!**" after selecting the enable bar.

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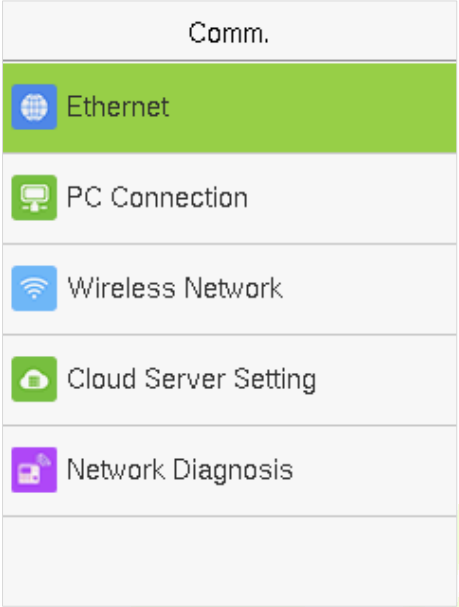
5 Communication Settings

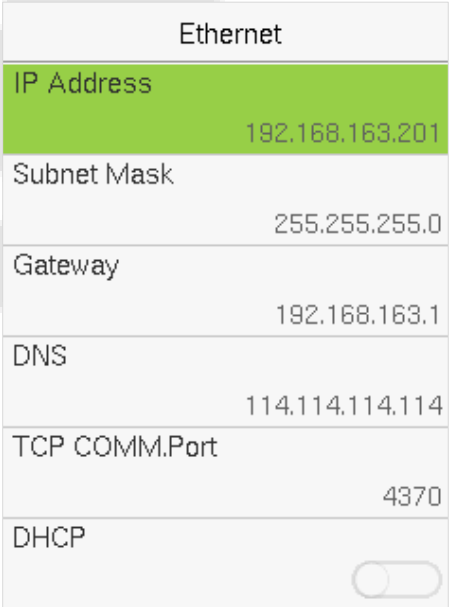
Select **COMM.** on the main menu to get into communication settings and set parameters of the network, PC connection, WIFI, and cloud server.



5.1 Network Settings

When the device needs to communicate with a PC over the Ethernet, you need to configure network settings and ensure that the device and the PC are connecting to the same network segment.

Select **Ethernet** on the Comm. Settings interface.



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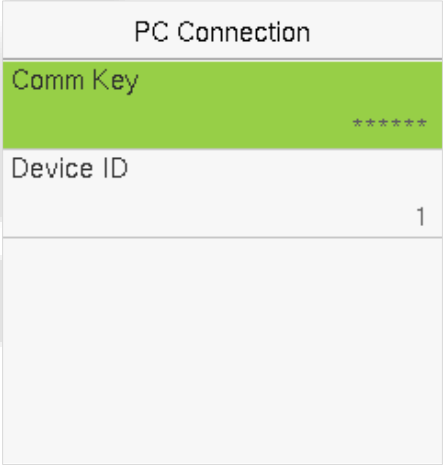
Item	Descriptions
IP Address	The factory default value is 192.168.1.201. Please set them according to the actual network situation.
Subnet Mask	The factory default value is 255.255.255.0. Please set them according to the actual network situation.
DNS	The factory default address is 0.0.0.0. Please set them according to the actual network situation.
TCP COMM. Port	The factory default value is 4370. Please set them according to the actual network situation.
DHCP	Dynamic Host Configuration Protocol helps in dynamically allocating IP addresses for clients via server.
Display in Status Bar	To set whether to display the network icon on the status bar.

5.2 PC Connection

To improve the security of data, please set a Comm Key for communication between the device and the PC.

The connection password needs to be entered before the device can be connected to the PC software if a Comm Key is set.

Select **PC Connection** on the Comm. Settings interface to set **Comm Key**.



Item	Descriptions
Comm Key	The default password is 0, which can be changed later. The Comm Key may contain1-6 digits.
Device ID	It is the identification number of the device, which ranges between 1 and 254. If the communication method is RS232/RS485, you need to input this device ID in the software communication interface.

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5.3 Wireless Network★

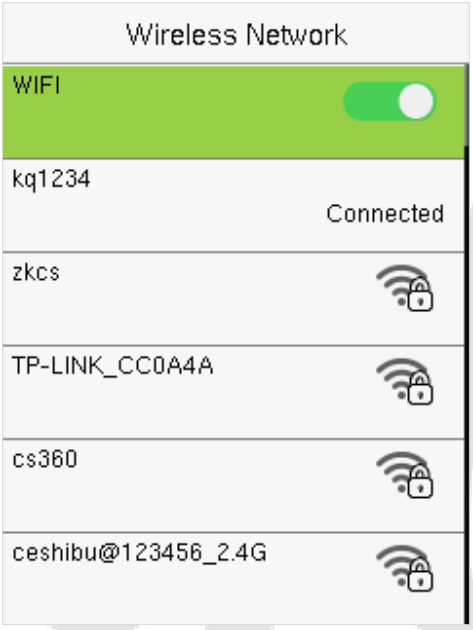
The device provides a Wi-Fi module, which can be built-in within the device module or can be externally connected.

The Wi-Fi module enables data transmission via Wi-Fi (Wireless Fidelity) and establishes a wireless network environment. Wi-Fi is enabled by default in the device. If you don't need to use the Wi-Fi network, you can toggle the Wi-Fi to disable the button.

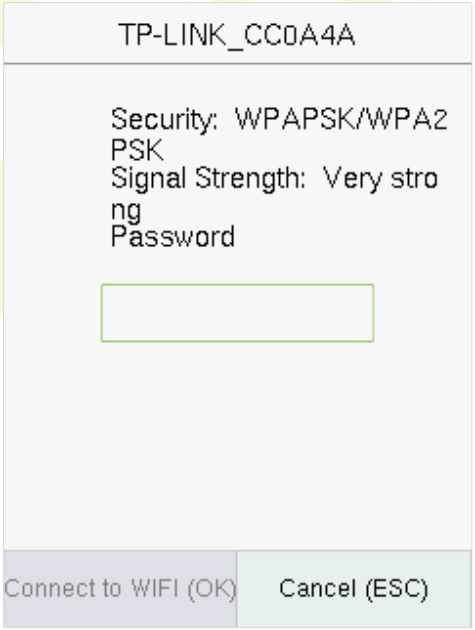
Select **Wireless Network** on the Comm. settings interface to configure the Wi-Fi settings.

Search the WIFI Network

- WIFI is enabled in the device by default. Toggle the button to enable or disable WIFI.
- Once the Wi-Fi is turned on, the device searches for the available WIFI within the network range.
- Choose the required Wi-Fi name from the available list and input the correct password in the password interface, and then select **Connect to WIFI (OK)** and press **[M/OK]** to confirm.



WIFI Enabled: Choose the required network from the searched network list.



Click the password field to enter the password, and then select **Connect to WIFI (OK)** and press **[M/OK]** to save**.**

- When the WIFI is connected successfully, the initial interface will display the Wi-Fi logo.

Add WIFI Network Manually

The Wi-Fi can also be added manually if the required Wi-Fi does not show on the list.

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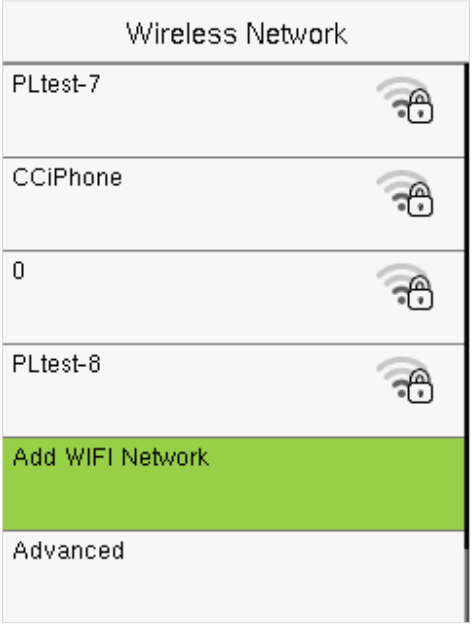
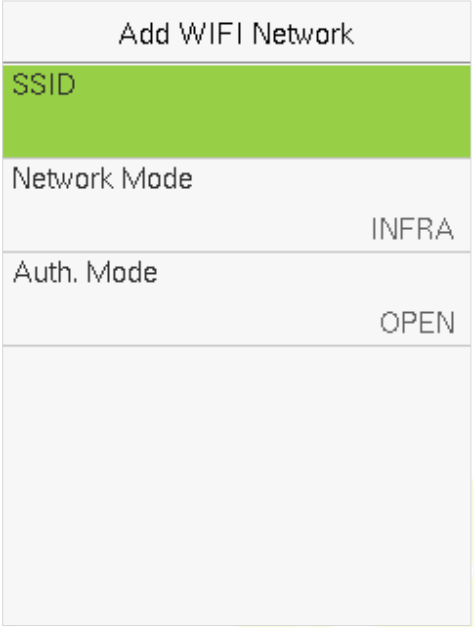


Select **Add WIFI Network** to add the WIFI manually and press **[M/OK]**.

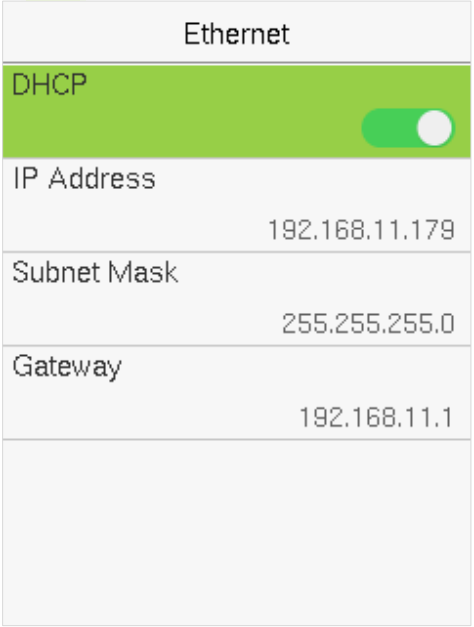


On this interface, enter the WIFI network parameters (the added network must exist.)

Note: After successfully adding the WIFI manually, follow the same process to search for the added WIFI name.

Advanced Setting

On the **Wireless Network** interface, select **Advanced** to set the relevant parameters as required.



Function Description

Function Name	Description
DHCP	Dynamic Host Configuration Protocol (DHCP) dynamically allocates IP addresses to network clients. If the DHCP is enabled, then the IP cannot be set manually.

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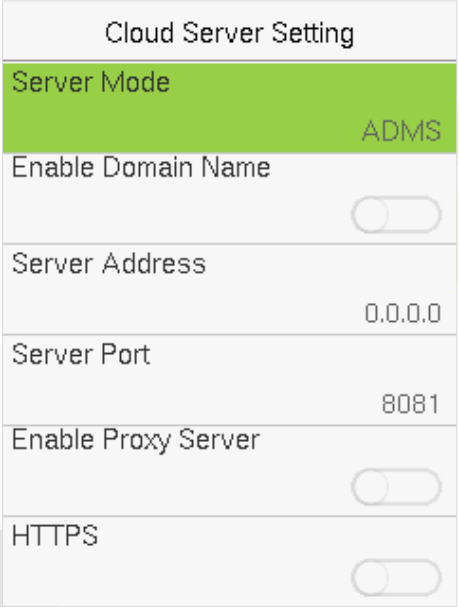
IP Address	The IP address for the WIFI network, the default is 0.0.0.0. It can be modified according to the network availability.
Subnet Mask	The default Subnet Mask of the WIFI network is 255.255.255.0. It can be modified according to the network availability.
Gateway	The default Gateway address is 0.0.0.0. It can be modified according to the network availability.

5.4 Cloud Server Setting

The Cloud Server setting option helps to set different configurations used for connecting with the ADMS server.

Select **Cloud Server Setting** on the Comm. Settings interface.



Item		Description
Enable Domain Name	**Server Address**	When enabled, the domain name mode "http://..." is used, such as http://www.XYZ.com, while "XYZ" denotes the domain name.
Disable Domain Name	**Server Address**	The IP address of the ADMS server.
	Server Port	Port used by the ADMS server.
Enable Proxy Server		When a proxy is enabled, you need to set the IP address and port number of the proxy server.
HTTPS		It is an HTTP channel with security as its goal. Based on HTTP, transmission encryption and identity authentication ensure the security of the data transmission process.

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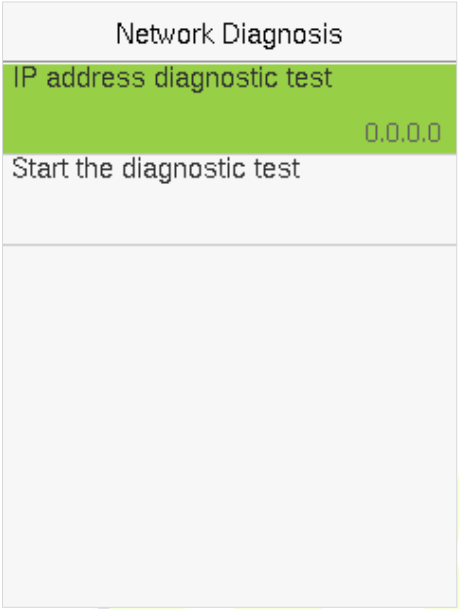
5.5 Network Diagnosis

It helps to set the network diagnosis parameters.

Select **Network Diagnosis** on the Comm. settings interface. Enter the IP address that needs to be diagnosed and click **Start the diagnostic test** to check whether the network can connect to the device.



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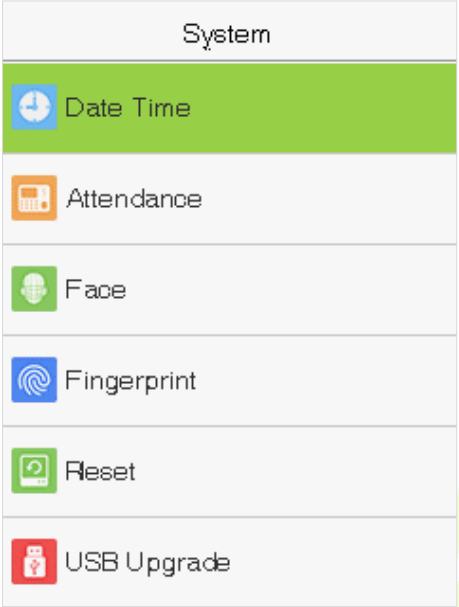
6 System Settings

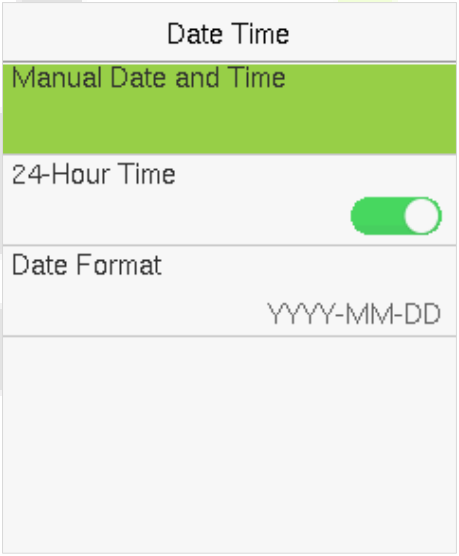
It helps to set related system parameters to optimize the performance and usability of the device.

Select **System** on the main menu interface.



6.1 Date and Time

Select **Date Time** on the System Setting interface.



Item	Descriptions
Manual Date and Time	Can set date and time manually and click [**M/OK**] to save.
24-Hour Time	The device displays 24-Hour time format, when enabled.
Date Format	Select the date format.

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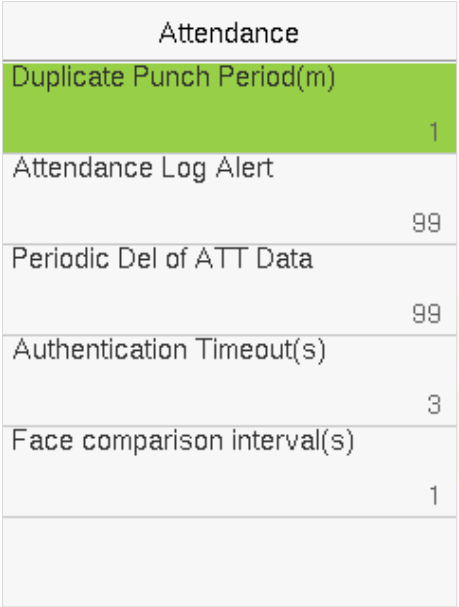
Note:

When restoring the factory settings, the time (24-hour) and the date format (YYYY-MM-DD) can be restored to default, but the device date and time cannot be restored.

For example, the user sets the time of the device (18:35 on March 15, 2019) to 18:30 on January 1, 2020. After restoring the factory settings, the time of the device will remain 18:30 on January 1, 2020.

6.2 Attendance Setting

Select **Attendance** on the System interface to alter the attendance rules as required.



Item	Description
Duplicate Punch Period (m)	Within a set time (unit: minutes), the duplicated attendance logs will not be reserved (value ranges from 1 to 999999 minutes).
Attendance Log Alert	When the remaining storage is smaller than the set value, the device will automatically alert users to the remaining storage information. It can be disabled or set to a value ranged from 1 to 9999.
Periodic Del of ATT Data	The number of attendance logs allowed to be deleted at once when the maximum storage is attained. It can be disabled or set to a value ranged from 1 to 999.
Authentication Timeout(s)	The time interval for which the "**Successful Verification**" message displays. Valid value: 1~9 seconds.
Face comparison Interval(s)	To set the time interval for facial template matching as required. Valid value: 0~9 seconds.

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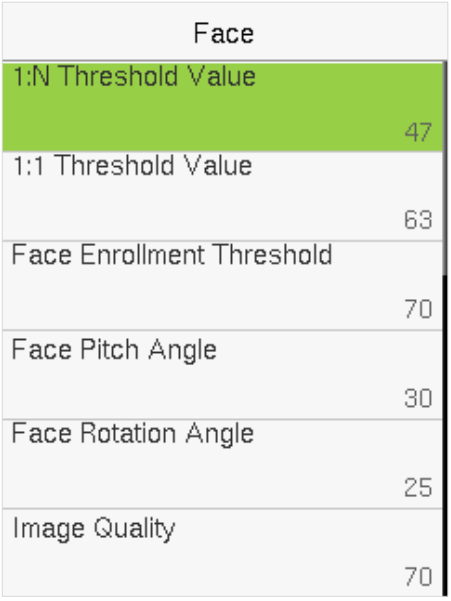
6.3 Face Parameters

Select **Face** option on the System interface.



FRR	FAR	Recommended matching thresholds	
		1:N	**1:1**
High	Low	48	42
Medium	Medium	46	40
Low	High	43	38

Item	Description
1:N Threshold Value	Under 1:N verification mode, the verification will only be successful when the similarity between the acquired facial image and all registered facial templates is greater than the set value. The valid value ranges from 0 to 100. The higher the thresholds, the lower the misjudgement rate and higher the rejection rate, and vice versa. The default value of 47 is recommended.
1:1 Threshold Value	Under 1:1 verification mode, the verification will only be successful when the similarity between the acquired facial image and the facial templates enrolled in the device is greater than the set value. The valid value ranges from 0 to 100. The higher the thresholds, the lower the misjudgement rate and higher the rejection rate, and vice versa. The default value of 63 is recommended.
Face Enrollment Threshold	During face enrolment, 1:N comparison is used to determine whether the user has already registered before. When the similarity between the acquired facial image and all registered facial templates is greater than the set threshold, it indicates that the face has already been registered.
Face Pitch Angle	It is the pitch (top to bottom and vice-versa) angle tolerance of a face for facial registration and comparison. If a face's pitch angle exceeds the set value, it will be filtered by the algorithm, i.e., ignored by the terminal and no registration or comparison interface will be triggered.

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Face Rotation Angle	It is the rotation angle tolerance of a face for facial template registration and comparison. If a face's rotation angle exceeds this set value, it will be filtered by the algorithm, i.e., ignored by the terminal and, no registration and comparison interface will be triggered.
Image Quality	It sets the image quality for facial registration and comparison. The higher the value, the clearer the image required.
Minimum Face Size	It is required for facial registration and comparison. If an object's size is smaller than this set value, it will be filtered and not recognized as a face. This value can be understood as the face comparison distance. The farther the person is, the smaller the face will be, and the smaller the face pixel will be obtained by the algorithm. Therefore, adjusting this parameter can adjust the furthest comparison distance of faces. When the value is 0, the face comparison distance is not limited.
LED Light Trigger Value	It controls the turning on and off of the LED light. The larger the value, the more frequently the LED light will be turning on.
Motion Detection Sensitivity	It is the measurement of the amount of change in a camera's field of view that qualifies as potential motion detection that wakes up the terminal from standby to the comparison interface. The larger the value, the more sensitive the system would be, i.e., if a higher value is set, the comparison interface is much easily and frequently triggered.
Live Detection	It detects a spoof attempt by determining whether the source of a biometric sample is a live human being or a fake representation using visible light images.
Live Detection Threshold	It helps to judge whether the visible image comes from an alive body. The larger the value, the better the visible light anti-spoofing performance.
Anti-spoofing using NIR	It uses near-infrared spectra imaging to identify and prevent fake photos and videos attack.
Face Algorithm	Facial algorithm related information and pause facial template update.

Note:

Improper adjustment of the exposure and quality parameters may severely affect the performance of the device. Please adjust the exposure parameter only under the guidance of the after-sales service personnel of our company.

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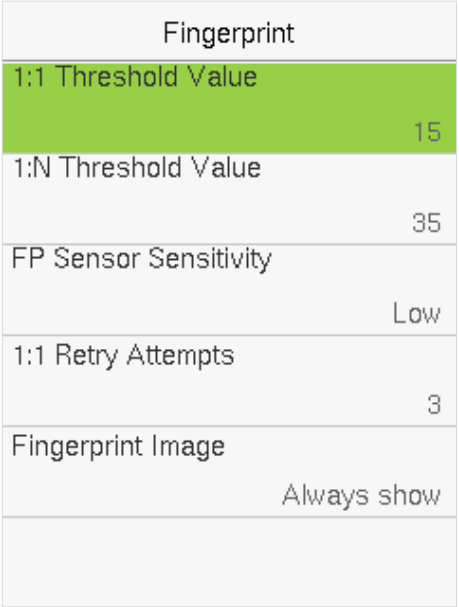
6.4 Fingerprint Parameters

Select **Fingerprint** option on the System interface.



FRR	FAR	Recommended matching thresholds	
		1:N	**1:1**
High	Low	45	25
Medium	Medium	35	15
Low	High	25	10

Item	Descriptions
1:1 Threshold Value	Under 1:1 verification method, the verification will only be successful when the similarity between the acquired fingerprint data and the fingerprint template associated with the entered user ID enrolled in the device is greater than the set threshold value.
1:N Threshold Value	Under 1:N verification method, the verification will only be successful when the similarity between the acquired fingerprint data and the fingerprint templates enrolled in the device is greater than the set threshold value.
FP Sensor Sensitivity	To set the sensibility of fingerprint acquisition. It is recommended to use the default level "**Medium"** in normal conditions. When the environment is dry, resulting in slow fingerprint detection, you can set the level to "**High"** to raise the sensibility; when the environment is humid, making it hard to identify the fingerprint, you can set the level to "**Low**".
1:1 Retry Attempts	In 1:1 Verification, users might forget the registered fingerprint, or press the finger improperly. To reduce the process of re-entering user ID, retry is allowed.
Fingerprint Image	To choose whether to display the fingerprint image on the screen during fingerprint enrolment or verification. Four choices are available: **Show for enrol**: To display the fingerprint image on the screen only during enrolment. **Show for match**: To display the fingerprint image on the screen only during verification. **Always show**: To display the fingerprint image on the screen during enrolment and verification. **None**: Not to display the fingerprint image.

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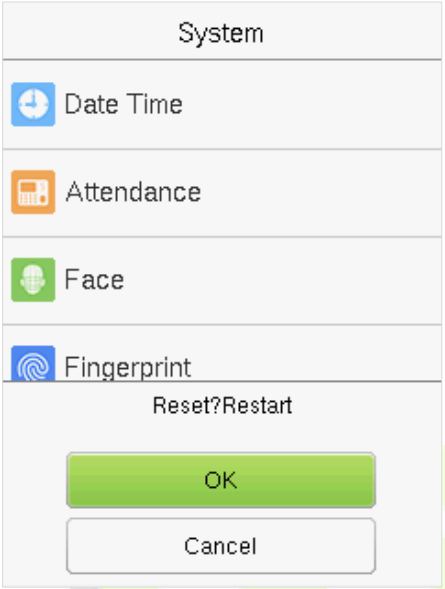
6.5 Factory Reset

Restore the device settings to their factory state, such as communication settings, system settings, etc.

(Do not clear registered user data).

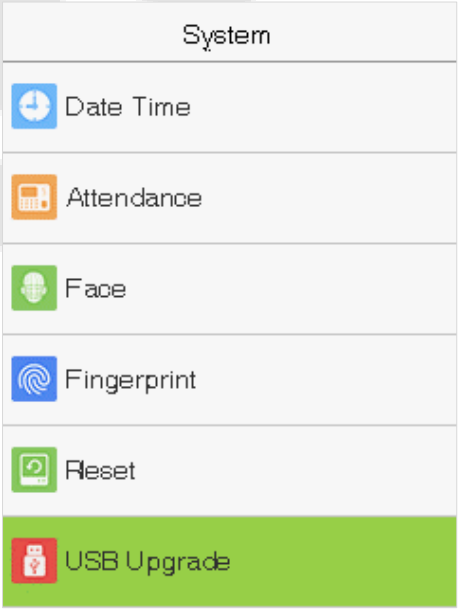
Select the **Reset** option on the System interface. Select **OK** to reset.



6.6 USB Upgrade

Insert the U disk with upgrade file into the device's USB port, and in the initial interface, press **[M/OK]** > **System** > **USB Upgrade** to complete firmware upgrade operation.

Select **USB Upgrade** option on the System interface.



Note: If an upgrade file is needed, please contact our technical support. Deny firmware upgrade under normal circumstances.

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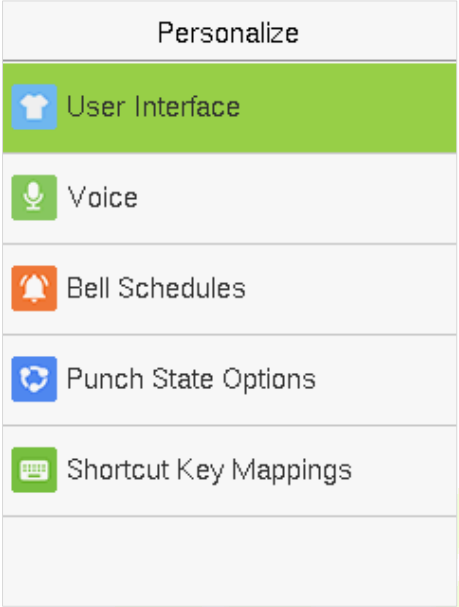
7 Personalize Settings

You may customize interface settings under this option.

Select **Personalize** option on the main menu interface.



7.1 Interface Settings

You can customize the display style of the main interface.

Select **User Interface** option on the Personalize interface.

Item	Description
Wallpaper	To select the main screen wallpaper according to your personal preference.
Language	To select the language of the device.

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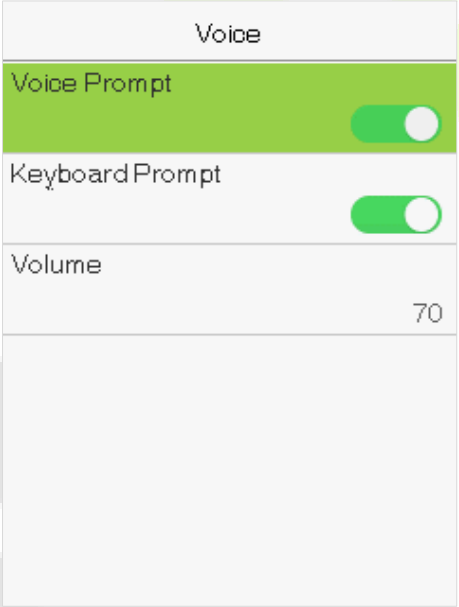
Menu Screen Timeout (s)	When there is no operation on the device, and the time exceeds the set value, then the device will automatically go back to the initial interface. You can disable the function or set the value between 60 and 99999 seconds.
Idle Time To Slide Show (s)	When there is no operation on the device, and the time exceeds the set value, a slide show starts to play. It can be disabled, or you may set the value between 3 and 999 seconds.
Slide Show Interval (s)	It refers to the time interval for switching slide show pictures. The function can be disabled, or you may set the interval between 3 and 999 seconds.
Idle Time to Sleep (m)	If sleep mode is activated when there is no operation, the device enters standby mode. Press any key or finger to resume normal working mode. You can disable this function or set a value within 1-999 minutes.
Main Screen Style	To select the main screen style according to your personal preference.

7.2 Voice Settings

Select **Voice** on the Personalize interface.



Item	Description
Voice Prompt	Select whether to enable voice prompts during operating, press **[M/OK]** to enable it.
Touch Prompt	Select whether to enable keyboard voice while pressing keyboard, press **[M/OK]** to enable it.
Volume	Adjust the volume of device. Press ▶ key to increase the volume, press ◀ key to decrease the volume.

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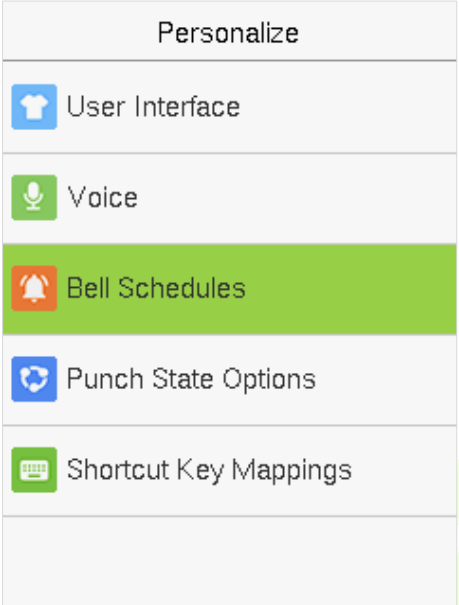
7.3 Bell Schedules Settings

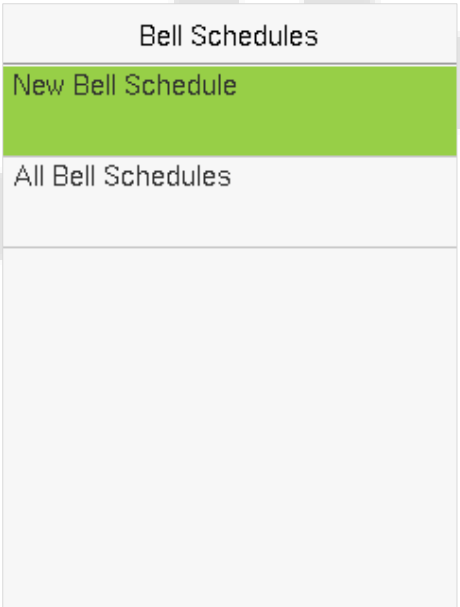
Many companies choose to use the bell to signify on-duty and off-duty time. When reaching the scheduled time for the bell, the device plays the selected ringtone automatically until the ringing duration passes.

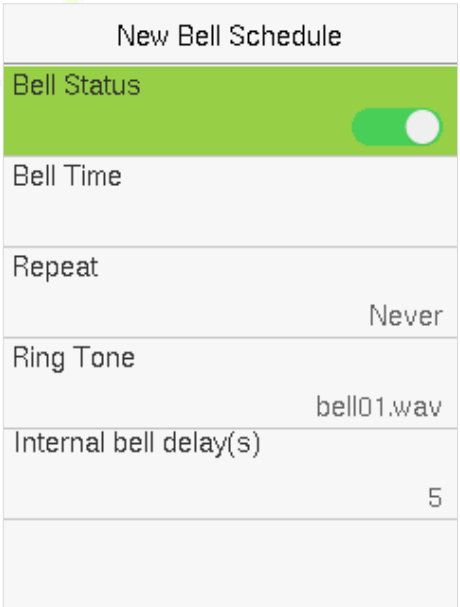
Select **Bell Schedules** option on the Personalize interface.



- **Add a Bell**

Select **New Bell Schedules** option on the **Bell Schedules** interface. Press **[M/OK]** Bell Status to enable the bell status.





1. You can manually set the date and time and press [**M/OK**] to save.
2. Set repeat, select a ring tone, and select the internal bell delay.

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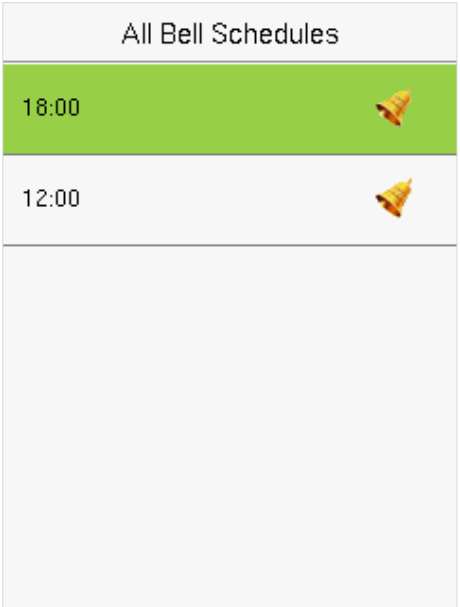
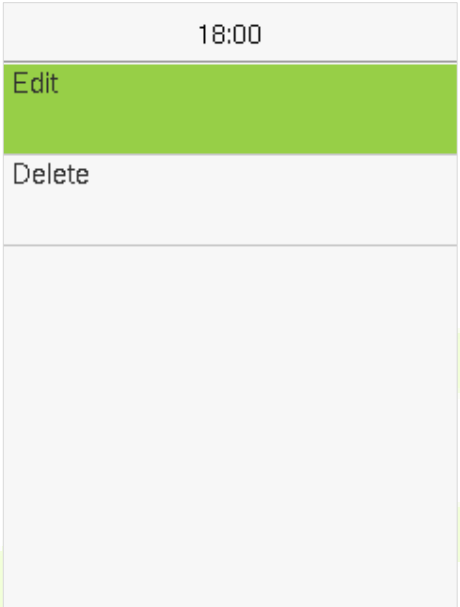
- **Edit Bell**

On the **All Bell Schedules** interface, select the bell item to be edited.

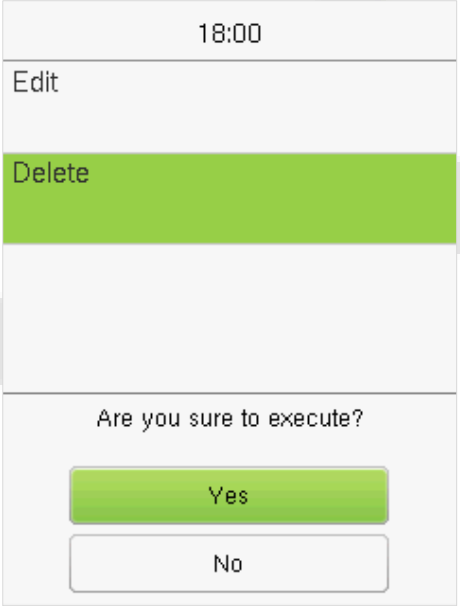


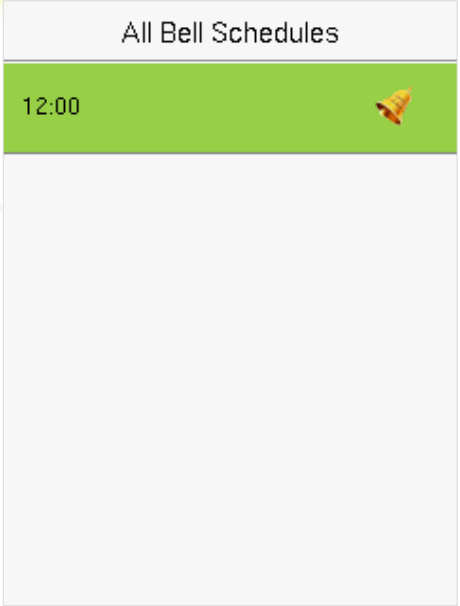


Select **Edit** to edit the bell schedule time. The editing method is the same as that of a new bell.

- **Delete a Bell**

On the **All Bell Schedules** interface, select a bell item to be deleted.





Select **Delete** and select [**Yes**] to delete the bell schedule.

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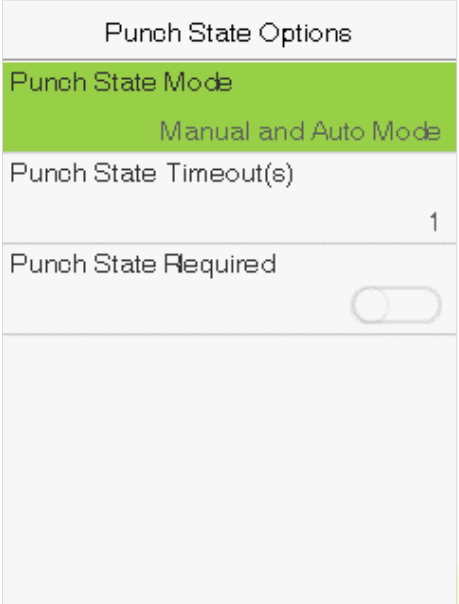
7.4 Punch States Options

Select **Punch State Options** on the Personalize interface.



Item	Description
Punch State Mode	Select a punch state mode under this menu option. The options are: **Off:** Select this to keep the punch state key function disabled. The punch state key set under the **Shortcut Key Mappings** menu becomes invalid. **Manual Mode:** Select to switch the punch state key manually, and the punch state key disappears after **Punch State Timeout**. **Auto Mode:** To make this mode work correctly, the switching time of the punch state key needs to be set in the **Shortcut Key Mappings**. After that, the punch state is automatically fetched by the device according to the switching time in the **Shortcut Key Mapping**. **Manal and Auto Mode:** In this mode, the main interface displays the auto-switching punch state key, meanwhile supports manual switching of the punch state key. After the timeout, the manual switching punch state key becomes an auto-switching punch state key. **Manual Fixed Mode:** In this mode, the punch state key remains unchanged until it is switched manually next time. **Fixed Mode:** It only displays the fixed punch state key, and it cannot be switched.
Punch State Timeout(s)	It is the time for which the punch state displays. The value ranges from 5~999 seconds.
Punch State Required	Select whether an attendance state needs to be selected after verification. **ON**: Attendance state needs to be selected after verification. **OFF**: Attendance state need not requires to be selected after verification.

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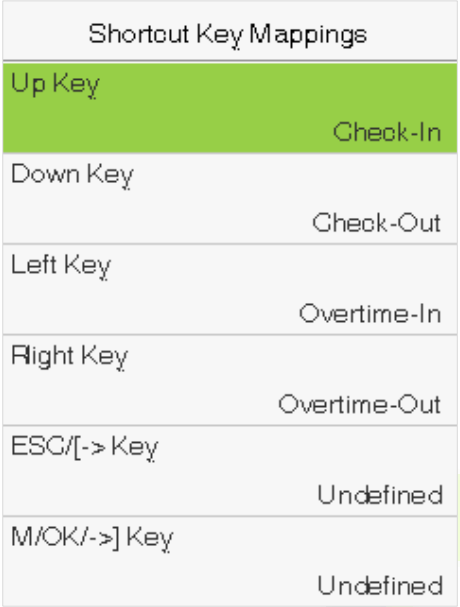
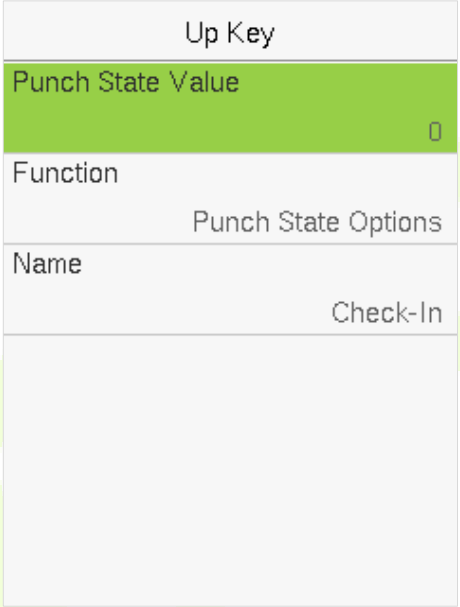
7.5 Shortcut Keys Mappings

Shortcut keys can be defined as punch state keys or menu function key. When the device is on the main interface, pressing the set shortcut key will display the attendance state or enter the menu operation interface.

Select the **Shortcut Key Mappings** option on the Personalize interface.





To set Auto-Switching Time:

Choose any shortcut key and select **Punch State Options** in **Function** to set the auto-switching time.

Auto Switch: A different time interval is set for different Punch State options. When a set time reaches, the device switches its attendance state automatically.

Note:

When the shortcut key is set to **Punch State Key**, but **OFF** mode is selected in the **Punch State Mode** (**Personalize** > **Punch State Options** > **Punch State Mode** > Select **OFF**), then the shortcut key will not be enabled.

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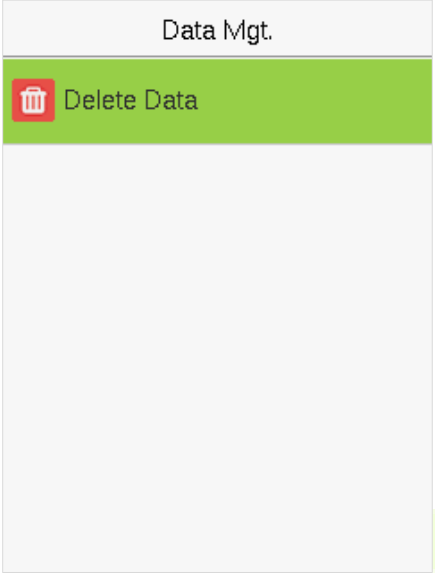
8 Data Management

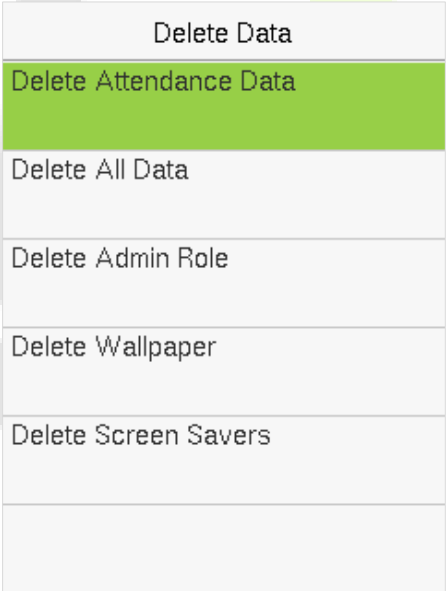
It helps to delete the relevant data in the device.

Select **Data Mgt.** option on the main menu interface.



8.1 Delete Data

Select **Delete Data** option on the **Data Mgt.** interface.



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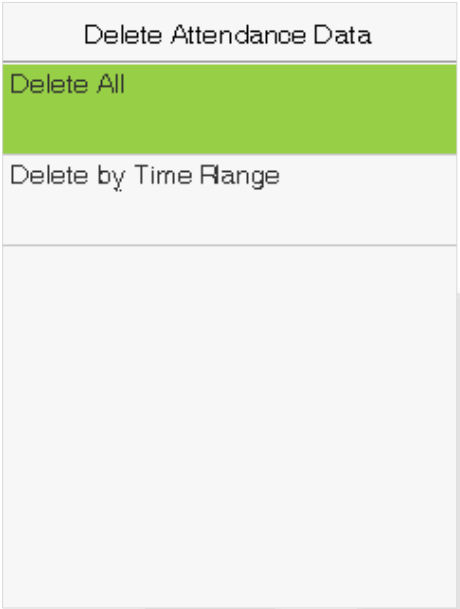
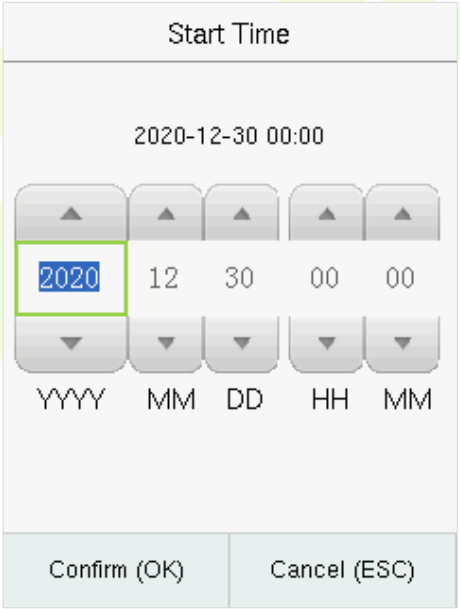
Item	Description
Delete Attendance Data	To delete all attendance data in the device.
Delete All Data	To delete information and access records of all registered users.
Delete Admin Role	To remove administrator privileges.
Delete Wallpaper	To delete all wallpapers in the device.
Delete Screen Savers	To delete the screen savers in the device.

Note: When deleting the access records, attendance photos, or blacklisted photos, you may select Delete All or Delete by Time Range. Selecting Delete by Time Range, you need to set a specific time range to delete all data with the period.



Select Delete by Time Range



Set the time range and select **Confirm(OK).**

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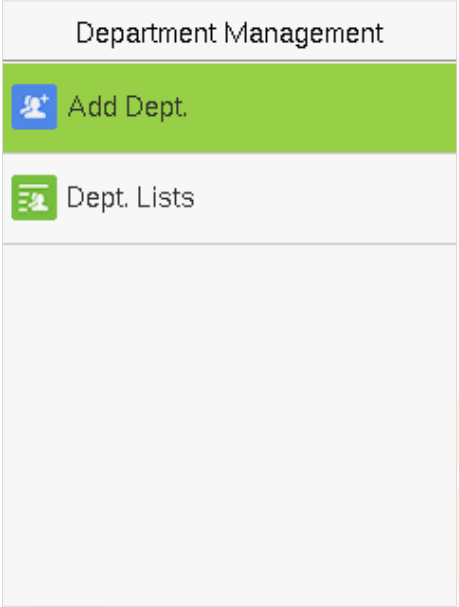
9 Department Management

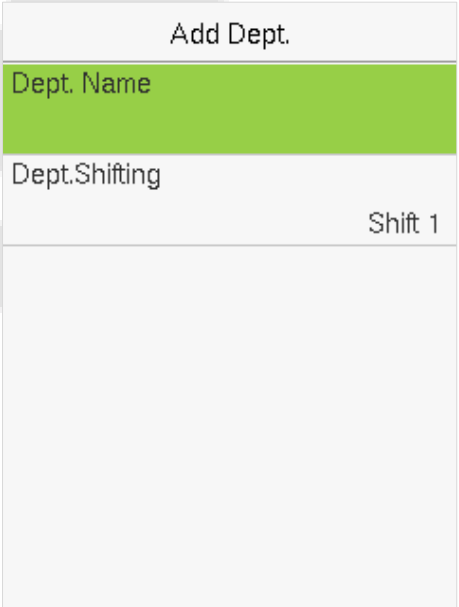
Establishing an organizational structure of the company and arranging departments shift is necessary to view the department information of the device. In this menu option, you can add, edit, or remove a department.

Select **Department** on the main menu interface.



9.1 Add a Department

1. Select **Add Dept.** and press [**M/OK**] to enter.



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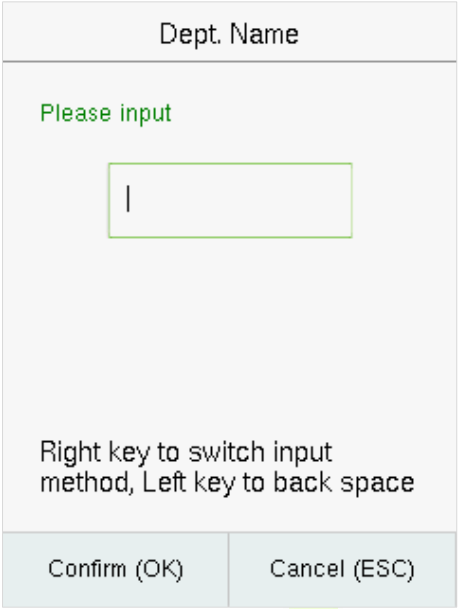
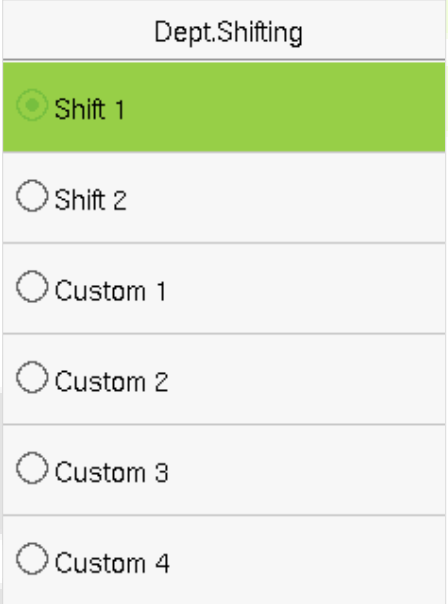
2. Select **Dept. Name** and enter the department name using the T9 input method.



3. Select the **Dept. Shifting** of the department.



Note:

1. The equipment will automatically assign numbers to departments, starting from 1 and so on.
2. **Dept. Shift:** Select the shift attendance used by all users of the department. Shifts can be set in **Shift set** > **Shifts setting**, with a maximum of 24 shifts set by default. Refer to Shift Set section.

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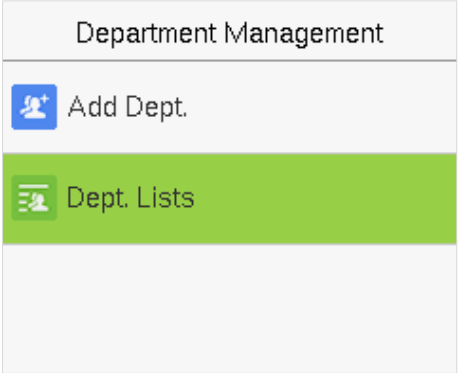
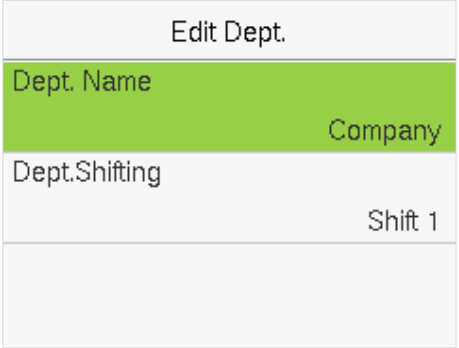
9.2 Edit a Department

There are 8 departments in the device by default. You can edit the department name and department shift, but you cannot delete them. In addition to the 8 default departments, additional departments can be edited and deleted.



1. Select **Dept. Lists** and press [**M/OK**] to enter.

2. Select a department to edit and press [**M/OK**] to enter.



3. Modify **Dept. Name** and **Dept. Shifting** and press [**M/OK**] to save.

   The editing of the department is the same as of **Add Dept**.

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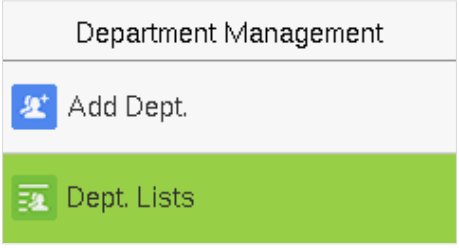
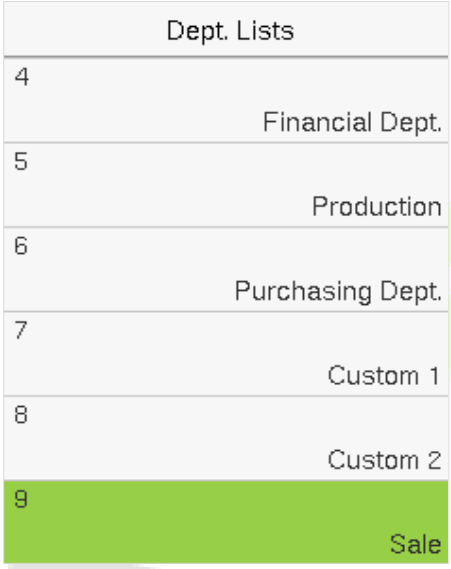
9.3 Delete a Department

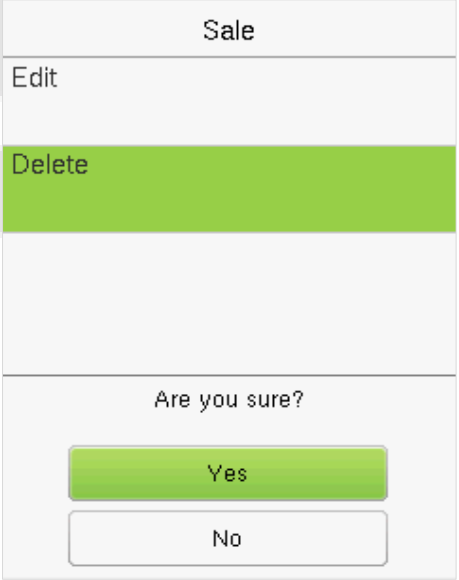
It helps to remove one or more department as required.



1. Select **Dept. Lists** and press [**M/OK**] to enter.



2. Select a department to delete and press **[M/OK]** to enter.



3. Select **Delete** and press **[M/OK]**.

Note: Only departments other than the 8 default departments in the device can be deleted.

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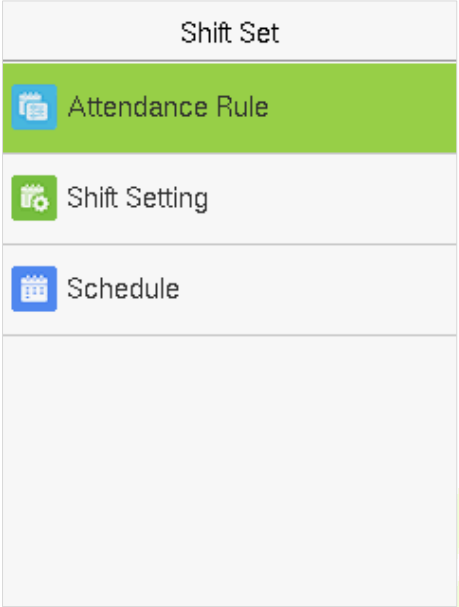
10 Shift Set

Set attendance rules, number of shifts to be used, and schedule employees.

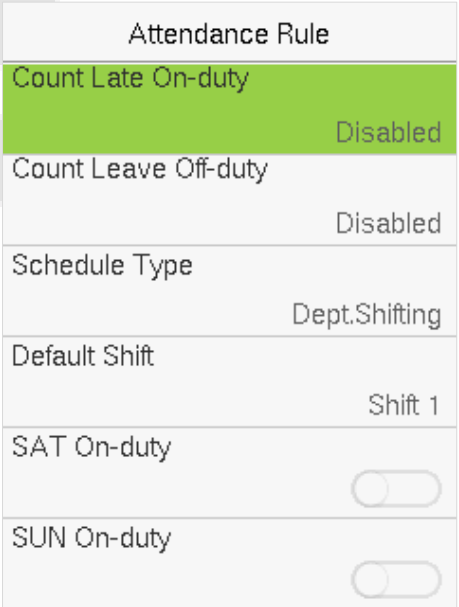
Select **Shift Set** option on the main menu interface.



10.1 Attendance Rule

All attendance statistics are conducted according to the attendance rules. Therefore, the staff attendance rules need to be set first, including late, early leave calculation method, and scheduling type. Once the attendance rules are set, it is not recommended to modify them frequently as it may affect the result of attendance calculation and may cause chaos in the scheduling if it is modified in the middle of the month.

Select **Attendance Rule** on the Shift Set interface.



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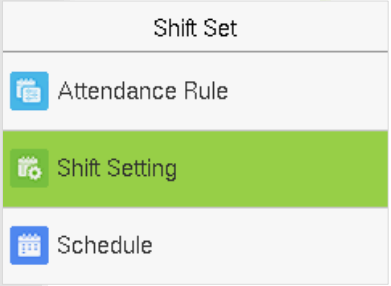
Item	Descriptions
Count Late On-duty	Set a time after which the lateness calculation for an employee should start. If it is disabled, the lateness calculation starts with the start of working hours.
Count Leave Off-duty	Set a time before which the early leave calculation for an employee should start. If disabled, it is calculated with respect to the end of the working hours.
Schedule Type	The device supports both department and individual-based scheduling. If a company uses one timetable, then only one department needs to be set and department-based scheduling is recommended. If the departments have their respective timetables, department-based scheduling is recommended. If employees may take different shifts, individual-based scheduling is recommended.
Default Shift	When individual-based scheduling is used, the default shift applies to all the non-scheduled employees.
SAT On-duty	Enable whether to work normally on Saturdays.
SUN On-duty	Enable whether to work normally on Sundays.

10.2 Shift Setting

Select **Shift Setting** on the Shift set interface.



Select a Shift on the list, and press **[M/OK]**.

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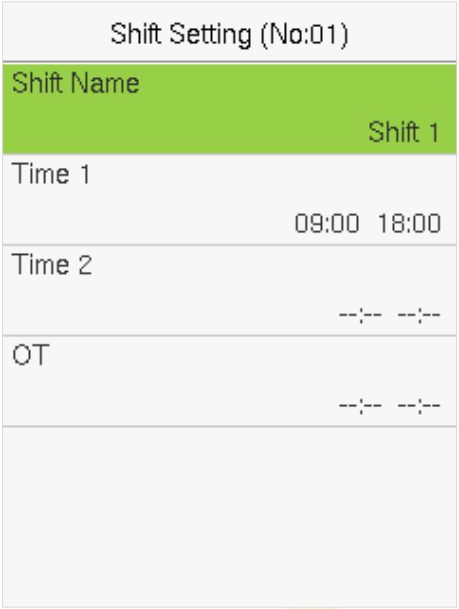
Use the T9 input method to enter "Shift Name" and set the required start and end times.

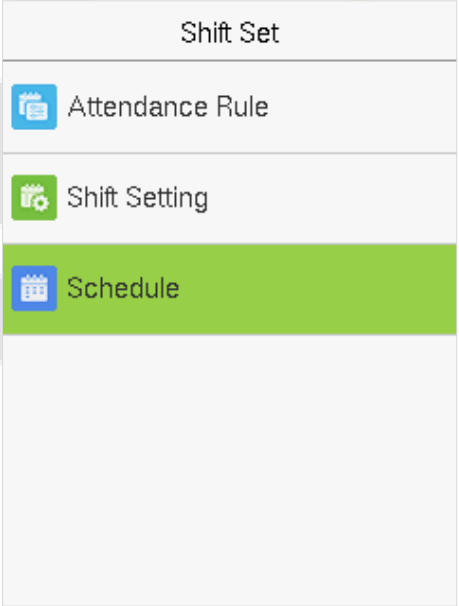


Note: The device supports a maximum of 24 shifts including two default shifts (Shift 1 and Shift 2). All the shifts are editable, and a single shift includes three-time ranges at most.

10.3 Schedule

The shifts should be set based on the actual condition of a company. If no shift is set, the system makes attendance calculations based on default shifts set in attendance rules.

Select **Schedule** on the Shift Set interface.



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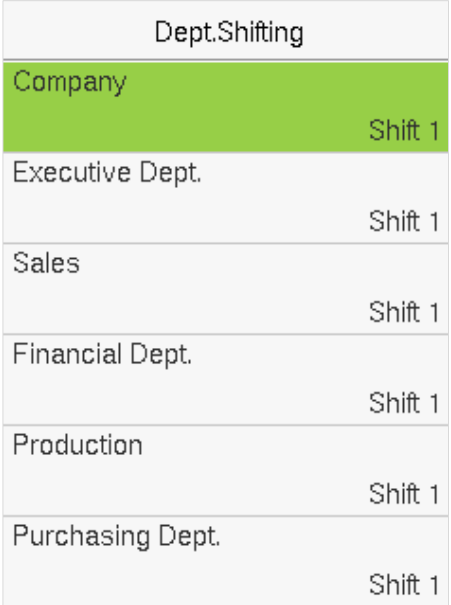
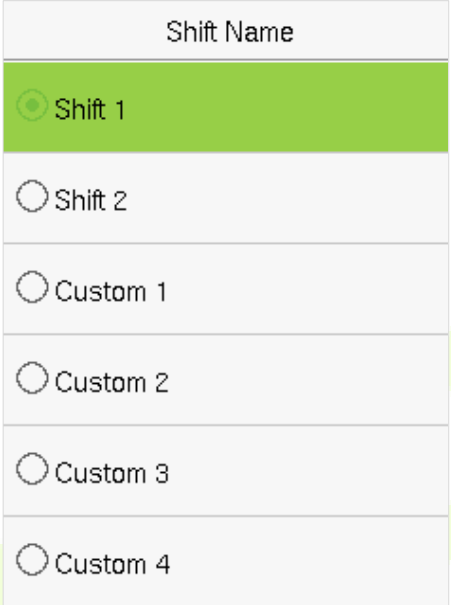
- **Department-based Scheduling**

Select **Shift Set** > **Attendance Rule** > **Schedule Type** > **Dept. Shifting** to schedule shift for a department.





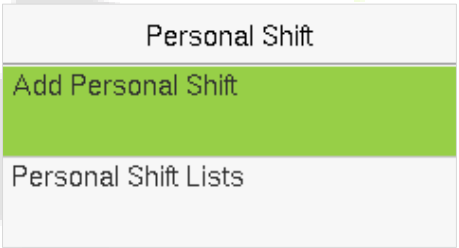
When a shift is selected for a department, it is implemented for all the members of the department.

- **Individual-based Scheduling**

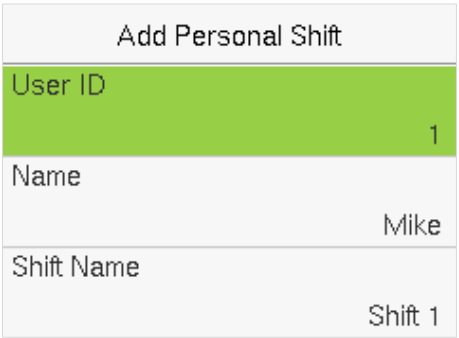
Select **Shift Set** > **Attendance Rule** > **Schedule Type** > **Personal Shift** to schedule shift for an individual.

1. Add Schedule

1) Press **[M/OK]** to enter Schedule interface and select **Add Personal Shift**.



2) Enter an ID. The device automatically displays the name. Select Shift Name and then press [**M/OK**].



3) Press [**ESC**] to exit and save.

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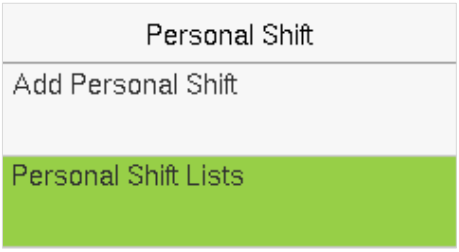
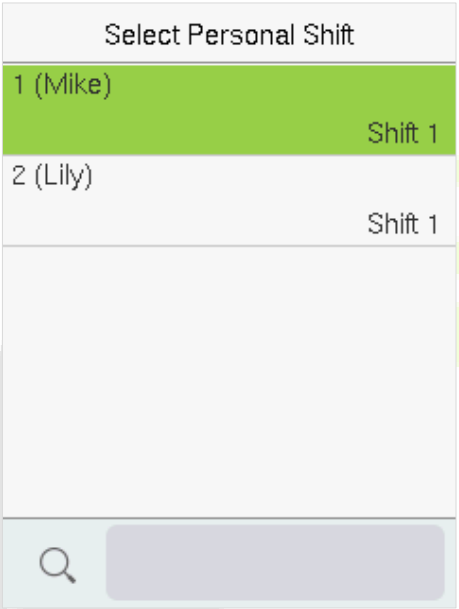
2. Edit Schedule

Enter the **Personal Shift Lists** for editing when the scheduling of individual employee needs to be adjusted.

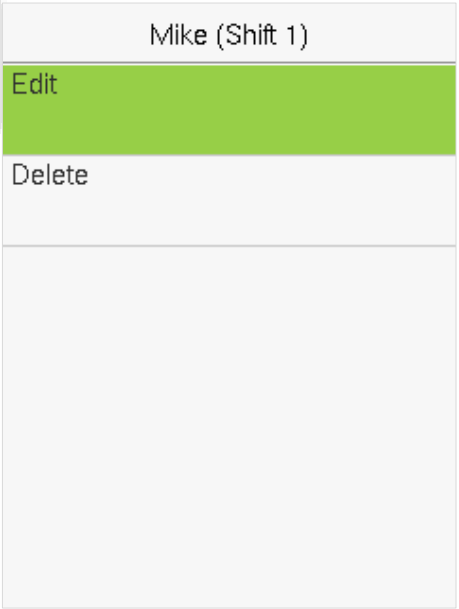
1) Select **Personal Shift Lists** on the Personal Shift interface.



2) Select a scheduled user and press **[M/OK]**.



3) Select **Edit**, press **[M/OK]** to enter and modify the "Shift Name" of the user.



Note: The User ID cannot be modified. The other operations are the same as those performed to add a shift.

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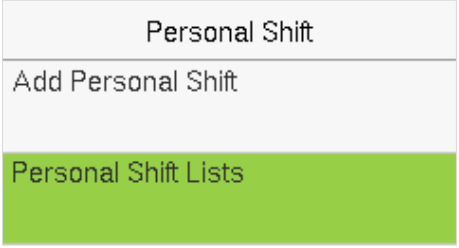
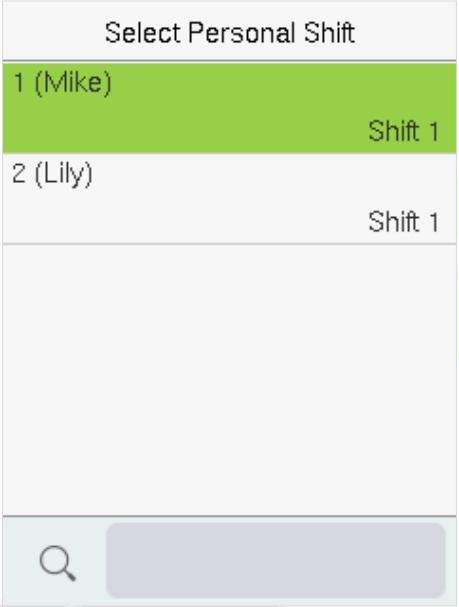
3. Delete a shift

Go to the **Personal Shift Lists**, to delete an employee's schedule that is no longer required.

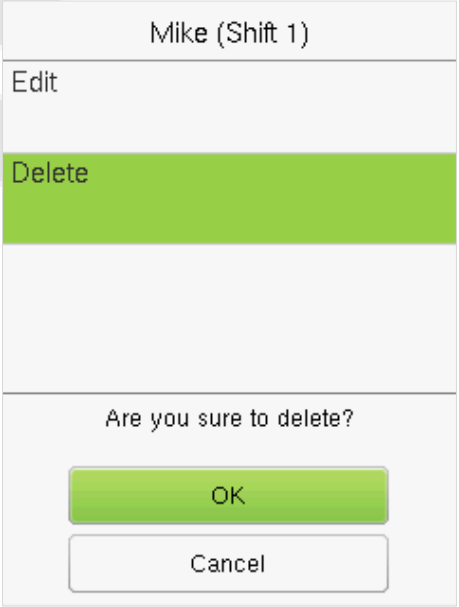
1) Select **Personal Shift Lists** on the Personal Shift interface.



2) Select a scheduled user and press **[M/OK]**.



3) Select **Delete**, press [**M/OK**], and choose "**OK**" to delete the Shift successfully.



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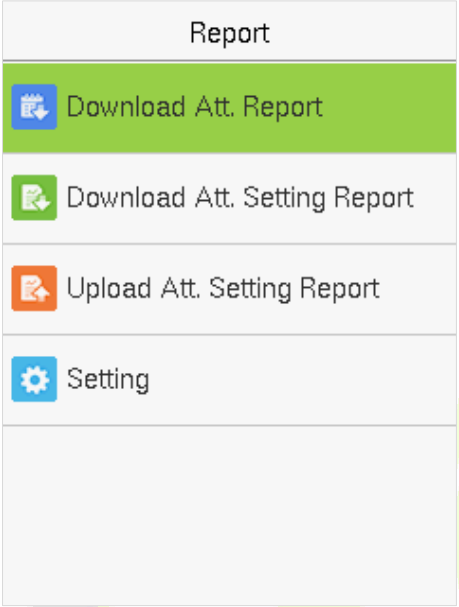
11 Report

This menu item allows you to download statistical reports of attendance or attendance setting reports to a USB flash drive or SD card. You can also upload attendance setting reports with defined shifts and employees' schedules. The device gives priority to the schedules in an attendance setting report.

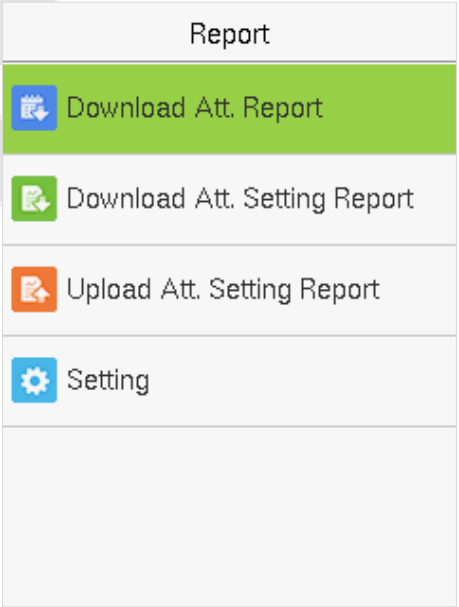
Select **Report** on the main menu interface.



Note: First insert the USB flash drive into the USB slot of the machine, and then enter the main menu to perform the related operations of the **Report**.

11.1 Download Att. Report

Select **Download Att. Report** and press **[M/OK]**.



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Set the on-duty time and press **[M/OK]**.

Set the off-duty time and press **[M/OK]**.

When Data download succeeds, Press **[M/OK]** to take out the USB disk or SD card. The SSRTemplateS.xls gets stored in the USB disk or SD card. The Schedule Information, Statistical Report of Attendance, Attendance Record Report, Exception Statistic Report, and Card Report can be viewed on a PC. The following reports show the preceding information:

To make reports more understandable, a report containing two-day attendance records of four employees is provided as an example.

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- **Schedule Information Report:** The report allows you to view schedule records of all employees.

Schedule Information Report

Stat.Date: 2020-08-01 ~ 2020-08-15 Special shifts:25-Ask for leave, 26-Out, Null-Holiday

ID	Name	Department	1	2
			FEB	MAR
1	Joe	company	1	1
2	David	company	1	1
3	Mark	company	1	1
4	Tom	company	1	1

- **Statistical Report of Attendance:** The report allows you to query the attendance of each person in a specified period. Salaries can be calculated directly based on this report.

Statistical Report of Attendance

Stat.Date: 2020-08-01~2020-08-15

ID	Name	Department	Work hour		Late		Leave early		Overtime hour		Att. Days (Nor./Real)	Out (Day)	Absent(Day)	AFL (Day)	Additem payment			Deduction payment			Real pay	Note
			Normal	Real	Times	Min	Times	Min	Workday	Holiday					Label	Overtime	Subsidy	Late/Leave	AFL	Cutpayment		
1	Joe	company	18:00	17:50	0	0	1	10	00:00	00:00	2/2	0	0	0								
2	David	company	18:00	17:48	1	12	0	0	00:00	00:00	2/2	0	0	0								
3	Mark	company	18:00	08:50	1	5	1	10	00:00	00:00	2/2	0	0	0								
4	Tom	company	18:00	18:00	0	0	0	0	00:00	00:00	2/2	0	0	0								

Note: The unit of Work hour and Overtime hour in the Statistical Report of Attendance is HH: MM. For example, 17:50 indicates that the on-duty time is 17 hours and 50 minutes.

- **Attendance Record Report:** The report lists the daily attendance records of all employees within a specified period.

Attendance Record Report

Att. Time 2020-08-01~2020-08-15 Tabulation 2019-08-15

1	2
ID: 1	Name: Joe Dept.: company
07:26 12:25 13:31 17:50	07:54 12:56 13:51 18:52
ID: 2	Name: David Dept.: company
07:36 12:26 13:31 18:31	09:12 15:50 15:51 18:52
ID: 3	Name: Mark Dept.: company
07:50 12:30 17:50	09:05
ID: 4	Name: Jack Dept.: company
07:45 12:50 18:31	08:11 17:55 18:06

- **Exception Statistic Report:** The report displays the attendance exceptions of all employees within a specified period so that the attendance department handles the exceptions and confirm them with the employees involved and their supervisors.

Exception Statistic Report

Stat.Date: 2020-01-01 ~ 2020-08-15

ID	Name	Department	Date	First time zone		Second time zone		Late time(Min)	Leave early(Min)	Absence (Min)	Total(Min)	Note
				On-duty	Off-duty	On-duty	Off-duty					
1	Joe	company	2019-08-01	07:26	17:50			0	10	0	10	
2	David	company	2019-08-02	09:12	18:52			12	0	0	12	
3	Mark	company	2019-08-01	07:50	17:50			0	10	0	10	
4	Tom	company	2019-08-02	09:05				5	0	535	540	

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❖ **Card Report:** The report can substitute for clock-based cards and can be sent to each employee for confirmation.

Card Report

Att. Date: 2020-08-01 ~ 2020-08-15 Tabulation: 2020-08-15

Dept.	company					Name	Joe		
Date	2020-08-01 ~ 2020-08-15					ID	1		
Absent(Day)	AFL (Day)	Out (Day)	On-duty	Overtime(H)		Late		Leave early	
				Workday	Holiday	(Times)	(Min)	(Times)	(Min)
0	0	0	2	0.0	0.0	0	0	1	10

Dept.	company					Name	David		
Date	2020-08-01 ~ 2020-08-15					ID	2		
Absent(Day)	AFL (Day)	Out (Day)	On-duty	Overtime(H)		Late		Leave early	
				Workday	Holiday	(Times)	(Min)	(Times)	(Min)
0	0	0	2	0.0	0.0	1	12	0	0

Dept.	company					Name	Mark		
Date	2020-08-01 ~ 2020-08-15					ID	3		
Absent(Day)	AFL (Day)	Out (Day)	On-duty	Overtime(H)		Late		Leave early	
				Workday	Holiday	(Times)	(Min)	(Times)	(Min)
0	0	0	2	0.0	0.0	1	5	1	10

Att. Report

Week Date	First time zone		Second time zone		Overtime	
	On-duty	Off-duty	On-duty	Off-duty	Check-In	Check-Out
01 FEB	07:26	17:50				
02 MAR	07:54	18:52				

Att. Report

Week Date	First time zone		Second time zone		Overtime	
	On-duty	Off-duty	On-duty	Off-duty	Check-In	Check-Out
01 FEB	07:36	18:31				
02 MAR	09:12	18:52				

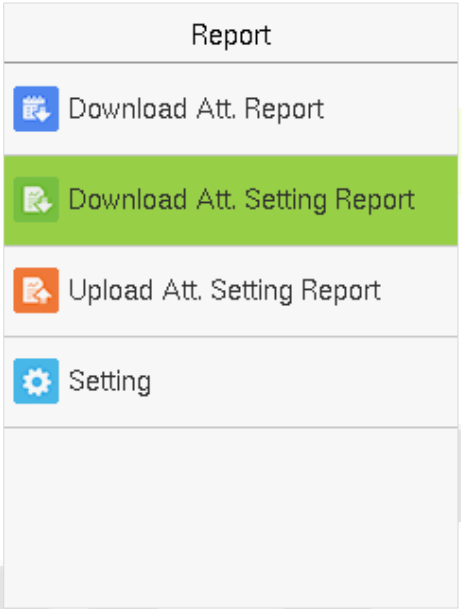
Att. Report

Week Date	First time zone		Second time zone		Overtime	
	On-duty	Off-duty	On-duty	Off-duty	Check-In	Check-Out
01 FEB	07:50	17:50				
02 MAR	09:05					

11.2 Download Att. Setting Report

If shifts are complex or the shifts of a person are not fixed, it is recommended that the attendance setting report be downloaded and shifts and schedules be set for employees in the attendance setting report.

Select **Download Att. Setting Report** and press **[M/OK]**.



Open the setting "AttSettingE.xls" in the USB disk or SD card on a PC. Set the Shift in the Attendance setting report. The shifts that have been set on the attendance machine shall be displayed. (For more details, see Shift Setting. You can modify the 24 shifts and add more shifts. After modification, the shifts shall prevail on the attendance machine.

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Attendance Setting Report

Number	Shift					
	First time zone		Second time zone		Overtime	
	On-duty	Off-duty	On-duty	Off-duty	Check-In	Check-Out
1	9:00	18:00				
2	9:00	12:00	13:30	18:00		
3	9:00	12:00	13:30	18:00		
4	9:00	12:00	13:30	18:00		
5	9:00	12:00	13:30	18:00		
6	9:00	12:00	13:30	18:00		
7	9:00	12:00	13:30	18:00		
8	9:00	12:00	13:30	18:00		
9	9:00	12:00	13:30	18:00		
10	9:00	12:00	13:30	18:00		
11	9:00	12:00	13:30	18:00		
12	9:00	12:00	13:30	18:00		
13	9:00	12:00	13:30	18:00		
14	9:00	12:00	13:30	18:00		
15	9:00	12:00	13:30	18:00		
16	9:00	12:00	13:30	18:00		
17	9:00	12:00	13:30	18:00		
18	9:00	12:00	13:30	18:00		
19	9:00	12:00	13:30	18:00		
20	9:00	12:00	13:30	18:00		
21	9:00	12:00	13:30	18:00		
22	9:00	12:00	13:30	18:00		
23	9:00	12:00	13:30	18:00		
24	9:00	12:00	13:30	18:00		

Enter the On-duty and Off-duty time in the corresponding columns, where the First time zone shall be the On-duty or Off-duty time of Time 1 of Shift Setting, and the Second time zone shall be the On-duty or Off-duty time of Time 2.

For the correct schedule time format, see "What is the correct time format used in the setting reports" in the "Self-Service Attendance Terminal FAQs."

Set a schedule setting report

Enter the **ID**, **Name**, and **Department** respectively on the left of the **Schedule Setting Report**. Set shifts for employees on the right of the **Schedule Setting Report**, where shifts 1–24 are shifts to set the **Attendance Setting Report.** Shift 25 is for leave and Shift 26 is for out.

Schedule Setting Report

Special shifts:25-Ask for leave, 26-Out, Null-Holiday

Schedule date				2020-8-1																														
ID	Name	Department	Card number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
				THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT
1	Joe	company																																
2	David	company																																
3	Mark	company																																
4	Jack	company																																

Notes:

1. The shifts of only 31 days can be arranged in one schedule setting report. For example, if the scheduling date is 2020-1-1, the schedule setting report contains the schedules of 31 days after 2020-1-1, that is, scheduled from 2020-1-1 to 2020-1-31. If the scheduling date is 2020-1-6, the schedule setting report contains the schedules of 31 days after 2020-1-6, that is, scheduled from 2020-1-6 to 2020-2-5.
2. If no schedule setting report is set, all employees use Report 1 by default from Monday to Friday.

11.3 Upload Att. Setting Report

After setting the attendance setting table, save the “Setting Report.xls” to the USB flash drive and reinsert the USB flash drive into the USB slot of the device.

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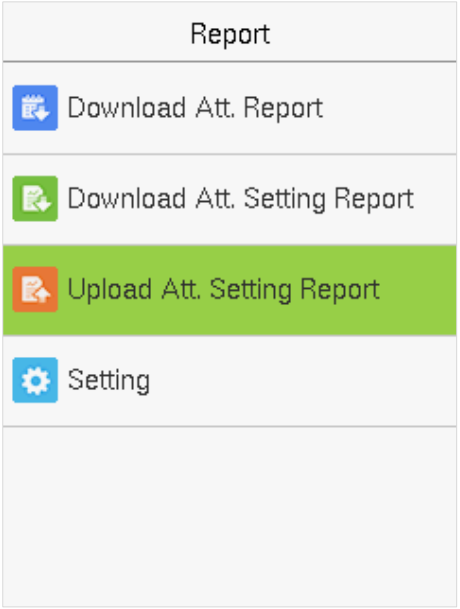
Select **Upload Att. Setting Report** on the Report interface and press **[M/OK]**.



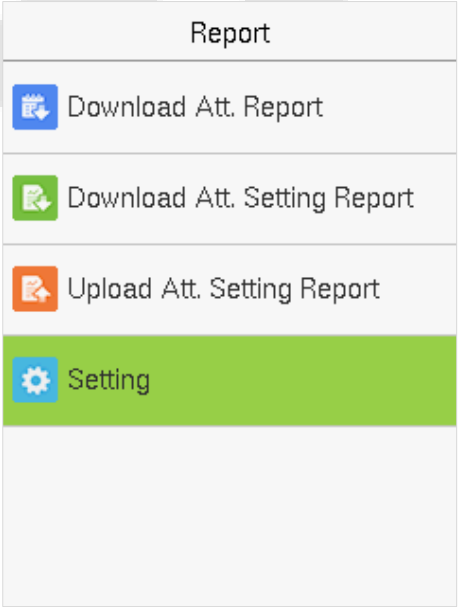
After uploading, remove the USB disk or SD card. At this time, the employee information, shift, and department in the setting report can be viewed respectively by the Management User, Shift Number, and Department available in the device. Or the above information and scheduling information can be seen in the standard download report.

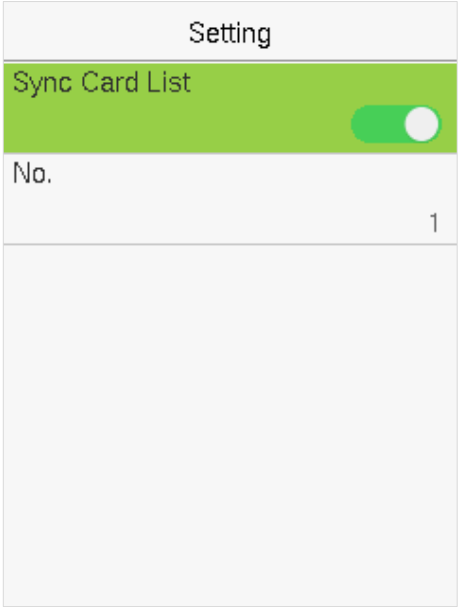
Note: If the schedule time format is incorrect, Re-upload the attendance setting report after modification.

11.4 Setting

Set whether to synchronize the card report and distinguish the device ID when downloading the attendance report.

Select **Setting** on the Report interface and press **[M/OK]**.





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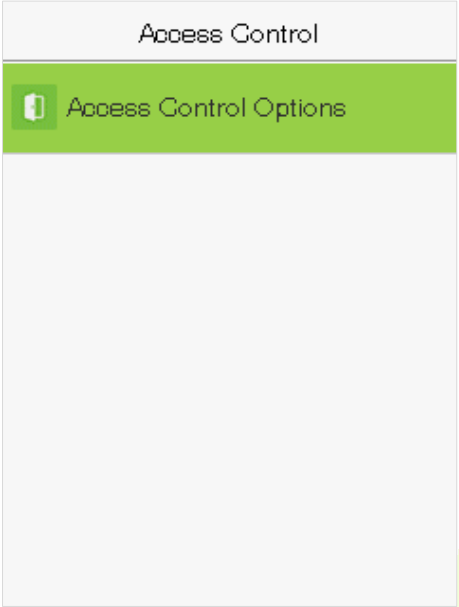
12 Access Control

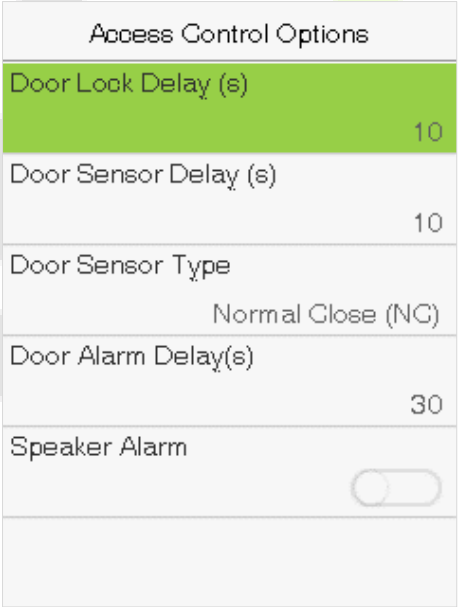
Select **Access Control** on the main menu interface.



12.1 Access Control Options

To set the parameters of the control lock of the terminal and related equipment.

Select **Access Control Options** on the Access Control interface.



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Item	Description
Door Lock Delay (s)	The length of time that the device controls the electric lock to be unlocked. Valid value: 1~10 seconds (0 second represents disabling the function).
Door Sensor Delay (s)	If the door is not closed and locked after opening for a certain duration (Door Sensor Delay), an alarm will be triggered. The valid value of Door Sensor Delay ranges from 1 to 255 seconds.
Door Sensor Type	There are three types of Door Sensor: **None, Normal Open**, and **Normal Closed**. **None** means door sensor is not in use; **Normal Open** means the door is always opened when powered; and **Normal Closed** means the door is always closed when powered.
Door Alarm Delay (s)	When the state of the door sensor is inconsistent with that of the door sensor type, alarm will be triggered after a certain time. This time is the **Door Alarm Delay** (the value ranges from 1 to 999 seconds).
Speaker Alarm	To transmit a sound alarm or disassembly alarm from the local. When the door is closed, or the verification is successful, the system cancels the alarm from the local.

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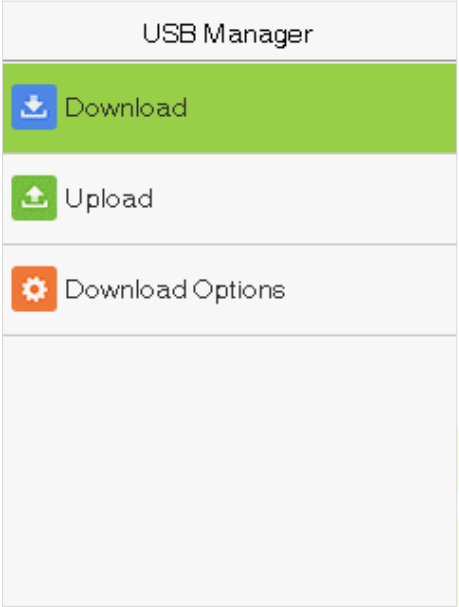
13 USB Manager

Upload or download data between the device and the corresponding software using a USB disk.

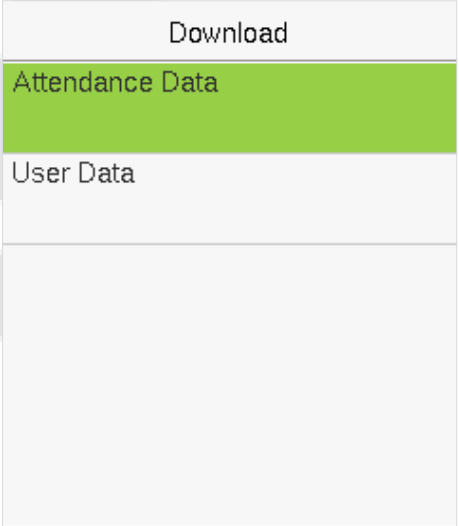
Before uploading/downloading data from/to the USB disk, insert the USB disk into the USB slot first.

Select **USB Manager** on the main menu interface.



13.1 USB Download

Select **Download** on the USB Manager interface.



Item	Description
Attendance Data	Import all the attendance data from the device to a USB disk.
User Data	Import all the user information, fingerprints, and facial images from the device to a USB disk.

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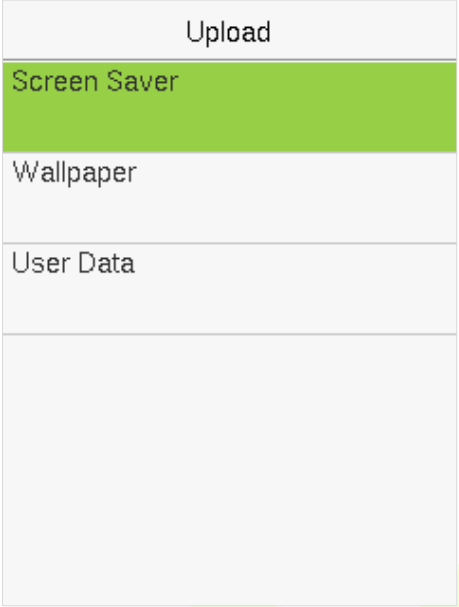
13.2 USB Upload

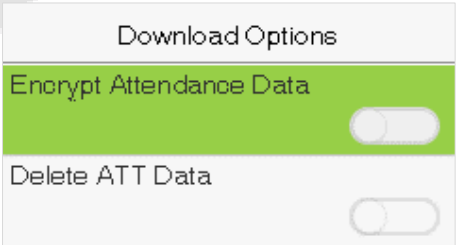
Select **Upload** on the USB Manager interface.



Item	Description
Screen Saver	To upload all screen savers from USB disk into the device. You can choose **[Upload selected picture]** or **[Upload all pictures]**. The images display as screensaver on the device's main interface after upload.
Wallpaper	To upload all wallpapers from USB disk into the device. You can choose **[Upload selected picture]** or **[Upload all pictures]**. The images display as wallpaper after upload.
User Data	Upload the message stored in a USB disk to the terminal.

13.3 Download Options

Select **Download Options** on the USB Manager interface.



Click **[M/OK]** to enable or disable the **[Encrypt Attendance Data]** and **[Delete ATT Data]** options.

With Encrypt Attendance data-enabled, the data downloads with encryption for better security.

Delete ATT Data deletes all the attendance data.

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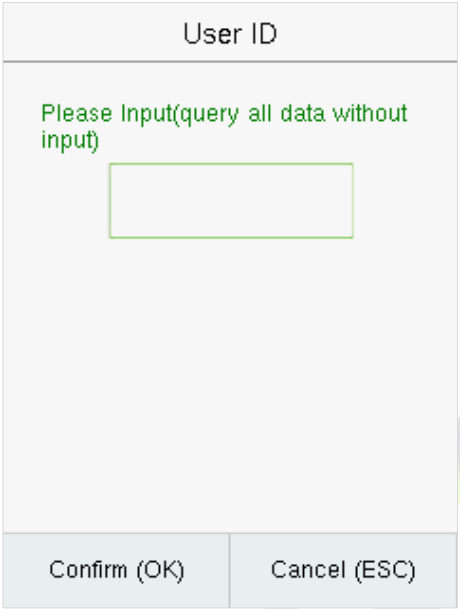
14 Attendance Search

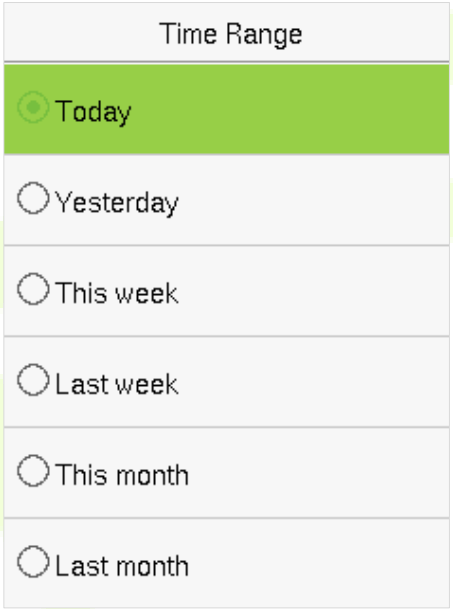
When the identity of a user is verified, the record is saved on the device. This function enables users to check their access records.

Select **Attendance Search** on the main menu interface and input the User ID. The interface is shown below.

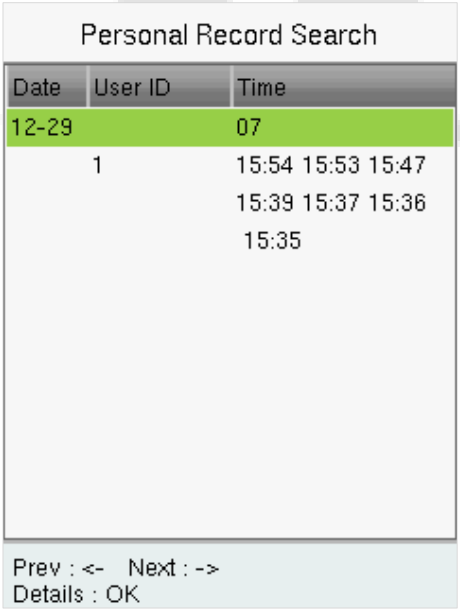
1) Enter the user ID to be searched and select **OK**. If you want to search for records of all users, select **OK** without entering any user ID.



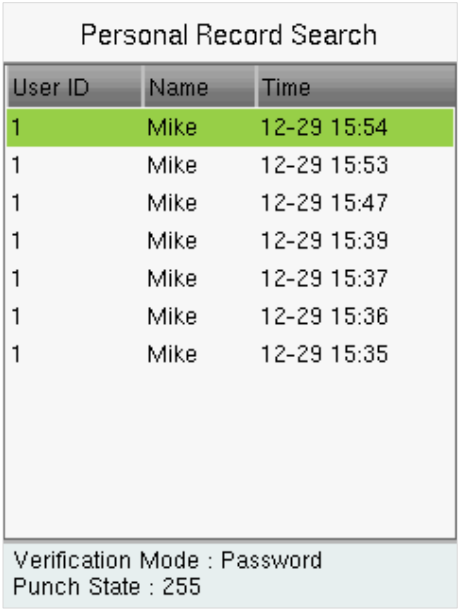
2) Select the time range for the records you want to search.



3) The record search succeeds. Select the record in green to view its details.



4) The below figure shows the details of the selected record.



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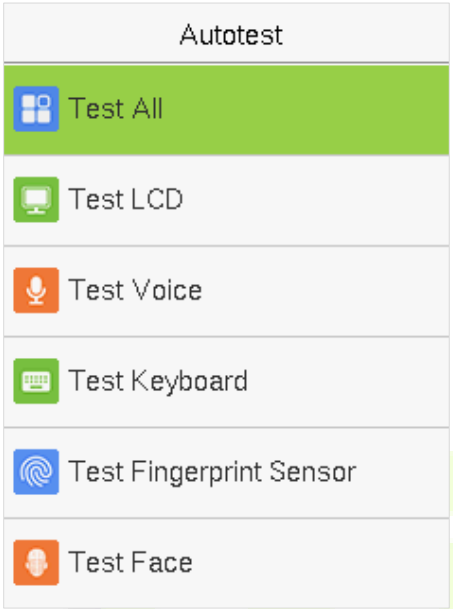
15 Autotest

The auto test enables the system to automatically test whether the functions of various modules are working normally, including the LCD, voice, sensor, keyboard, and clock tests.

Select **Autotest** option on the main menu interface.



Item	Description
Test All	To automatically test whether the LCD, audio, camera and RTC are working normally.
Test LCD	To automatically test the display of the LCD screen by displaying all the color bands including pure white and pure black to check whether the screen displays the colors accurately.
Test Voice	To automatically test whether the audio files stored in the device are complete and the voice quality is good.
Test Keyboard	The terminal tests whether every key on the keyboard works normally. Press any key on the **[Keyboard Test]** interface to check whether the pressed key matches the key displayed on the screen. The keys are displayed as dark grey before and turn blue after pressed. Press **[ESC]** to exit the test.
Test Fingerprint Sensor	The terminal automatically tests whether the fingerprint collector works properly by checking whether the fingerprint images are clear and acceptable. When the user places his/her finger in the fingered guide, the collected fingerprint image displays on the screen in real-time. Press **[ESC]** to exit the test.
Test Face	To test if the camera functions properly it checks the photos taken and determines if they are clear enough.
Test Clock RTC	To test the RTC. The device checks whether the clock works normally and accurately with a stopwatch. Touch the screen to start counting and press it again to stop counting.

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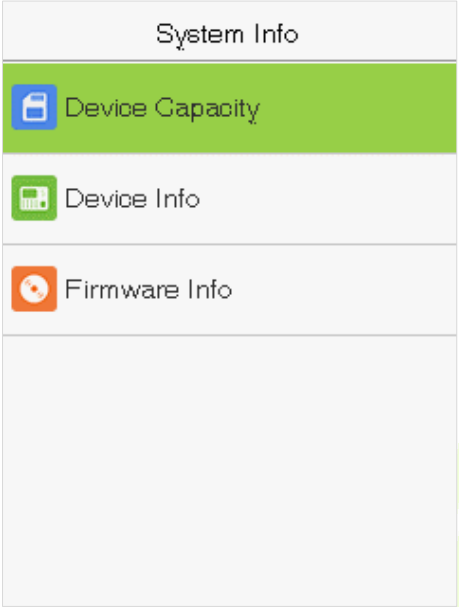
16 System Information

With the system information option, you can view the storage status, the version, and firmware information of the device.

Select **System Info** on the main menu interface.



Item	Description
Device Capacity	Displays the current device's user storage, password, fingerprint and face storage, administrators, and attendance records.
Device Info	Displays the device's name, serial number, MAC address, face algorithm version information, fingerprint algorithm version information, platform information, and MCU version.
Firmware Info	Displays the firmware version and other version information of the device.

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17 Connect to ZKBioAccess IVS Software

17.1 Set the Communication Address

- **Device side**

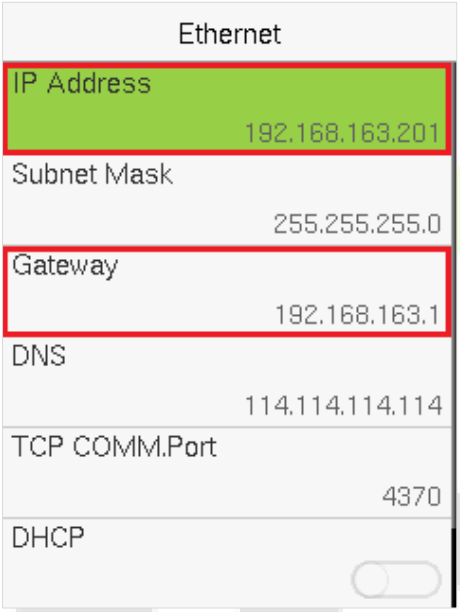
1. Tap **COMM.** > **Ethernet** in the main menu to set the IP address and gateway of the device.

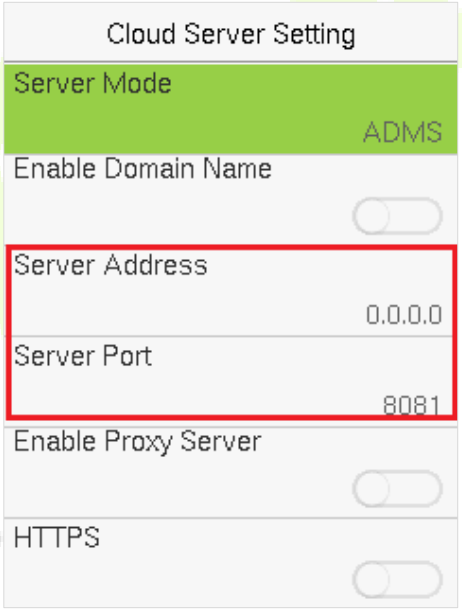
   (**Note:** The IP address should be able to communicate with the ZKBioAccess IVS server, preferably in the same network segment with the server address)

2. In the main menu, click **COMM.** > **Cloud Server Setting** to set the server address and server port.

   Server address: Set the IP address as of ZKBioAccess IVS server.

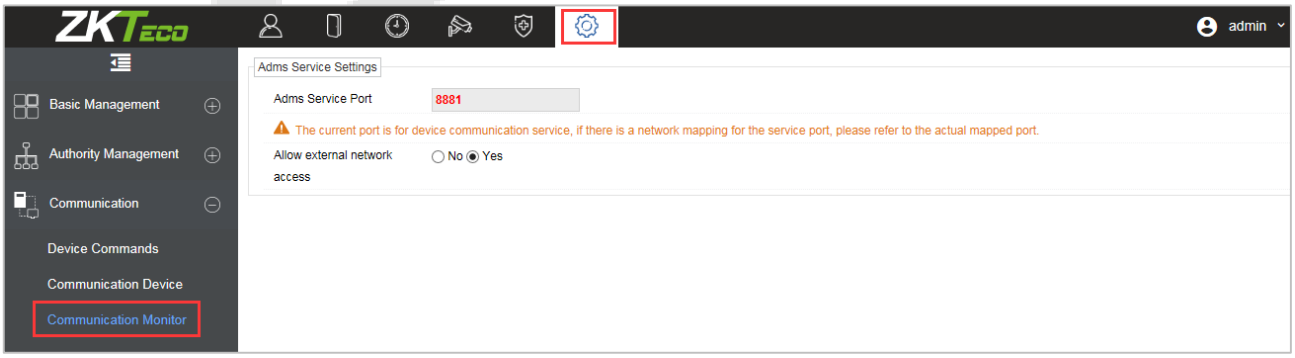
   Server port: Set the server port as of ZKBioAccess IVS(The default is 8088).





- **Software side**

Login to ZKBioAccess IVS software, click **System** > **Communication** > **Communication Monitor** to set the ADMS service port, as shown in the figure below:



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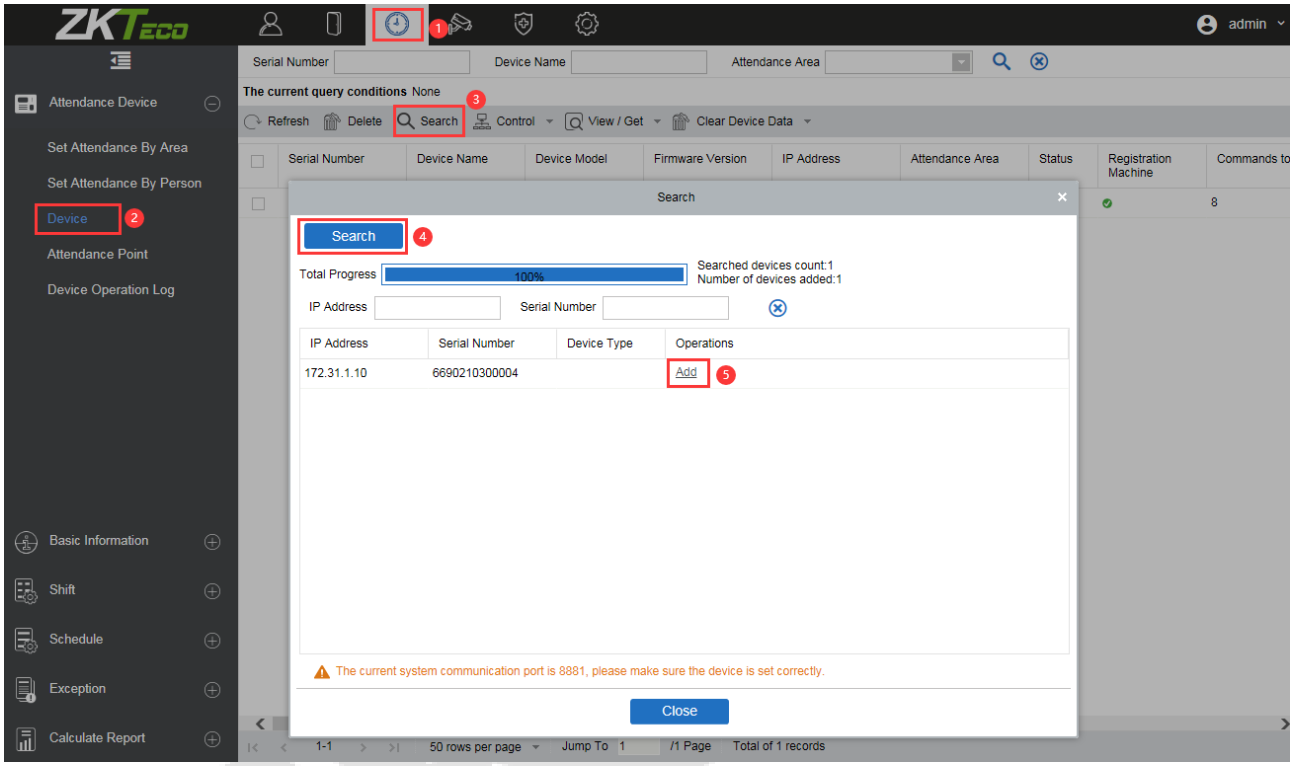
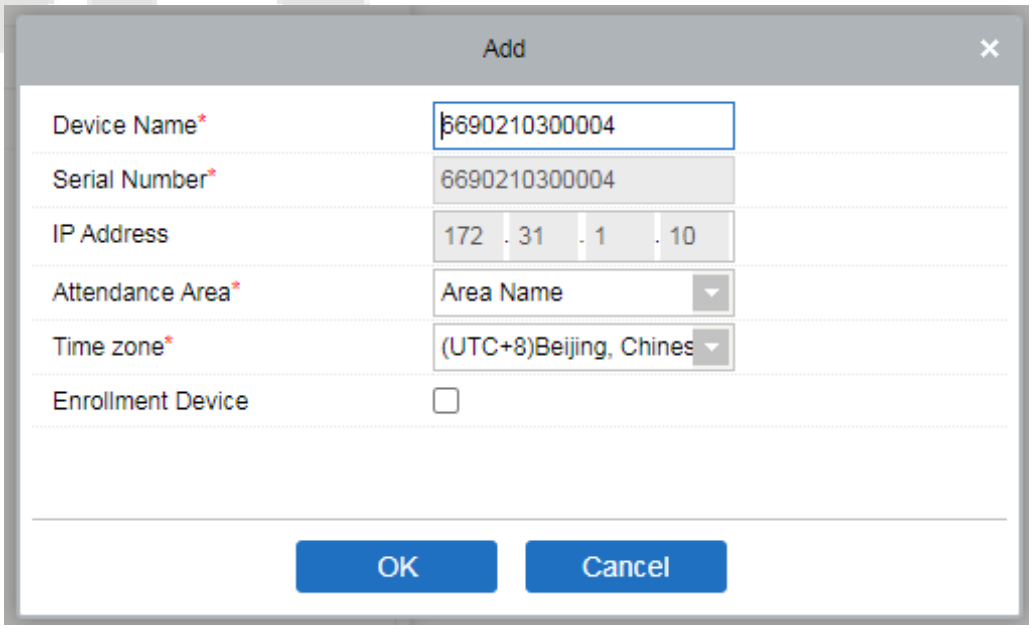
17.2 Add Device on the Software

Add the device by searching. The process is as follows:

1. Click **Attendance** > **Attendance Device** > **Device** > **Search**, to open the Search interface in the software.
2. Click **Search**, and it will prompt [**Searching**……].
3. After searching, the list and total number of access controllers will be displayed.



4. Click **Add** in operation column, a new window will pop-up. Select Attendance Area and Time zone from each dropdowns and click **OK** to add the device.



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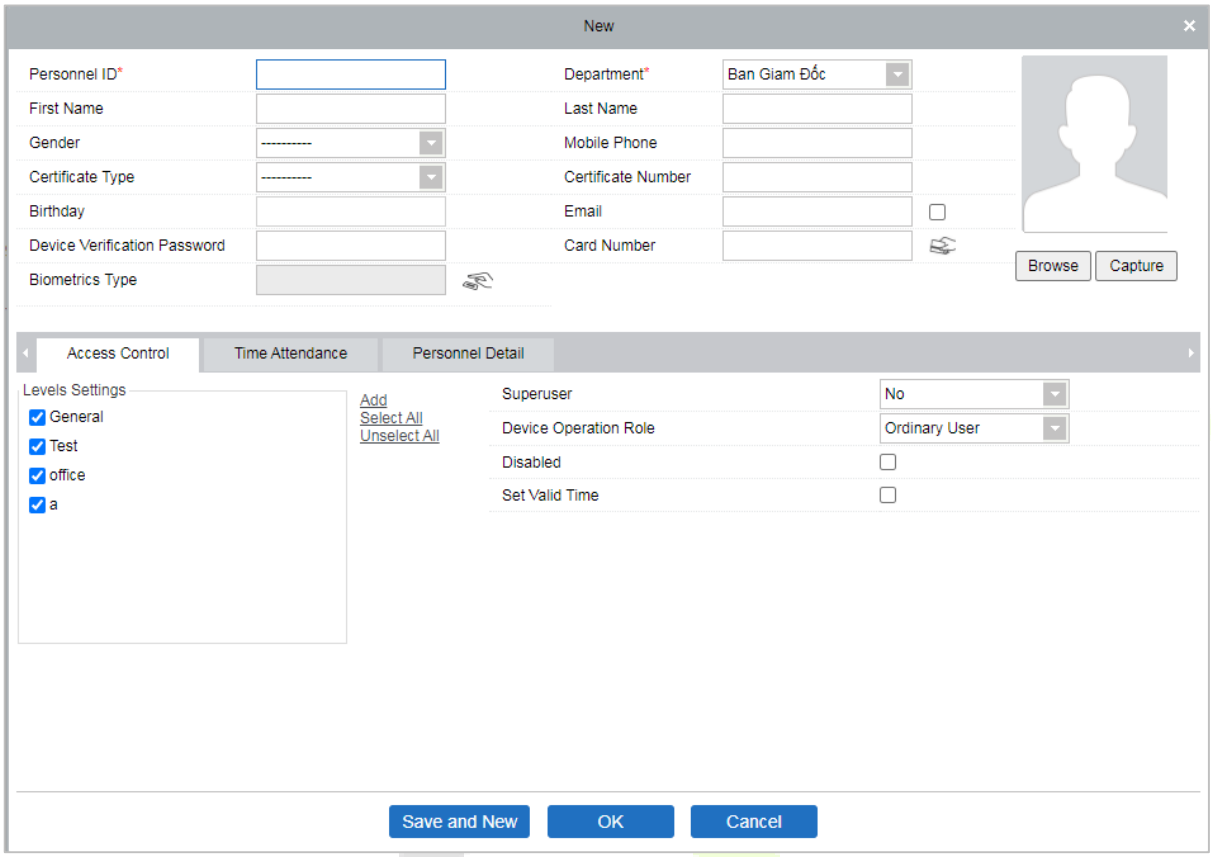
17.3 Add Personnel on the Software

1. Click **Personnel** > **Person** > **New**:



2. Fill in all the required fields and click **OK** to register a new user.

3. Click **Attendance** > **Attendance Device** > **Device** > **Control** > **Synchronize Software Data to the Device** to synchronize all the data to the device including the new users.

For more details, please refer to the ZKBioAccess IVS User Manual.

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Appendix

Self-Service Attendance Terminal FAQs

1. Does self-service attendance terminal support scheduling based on every other day?

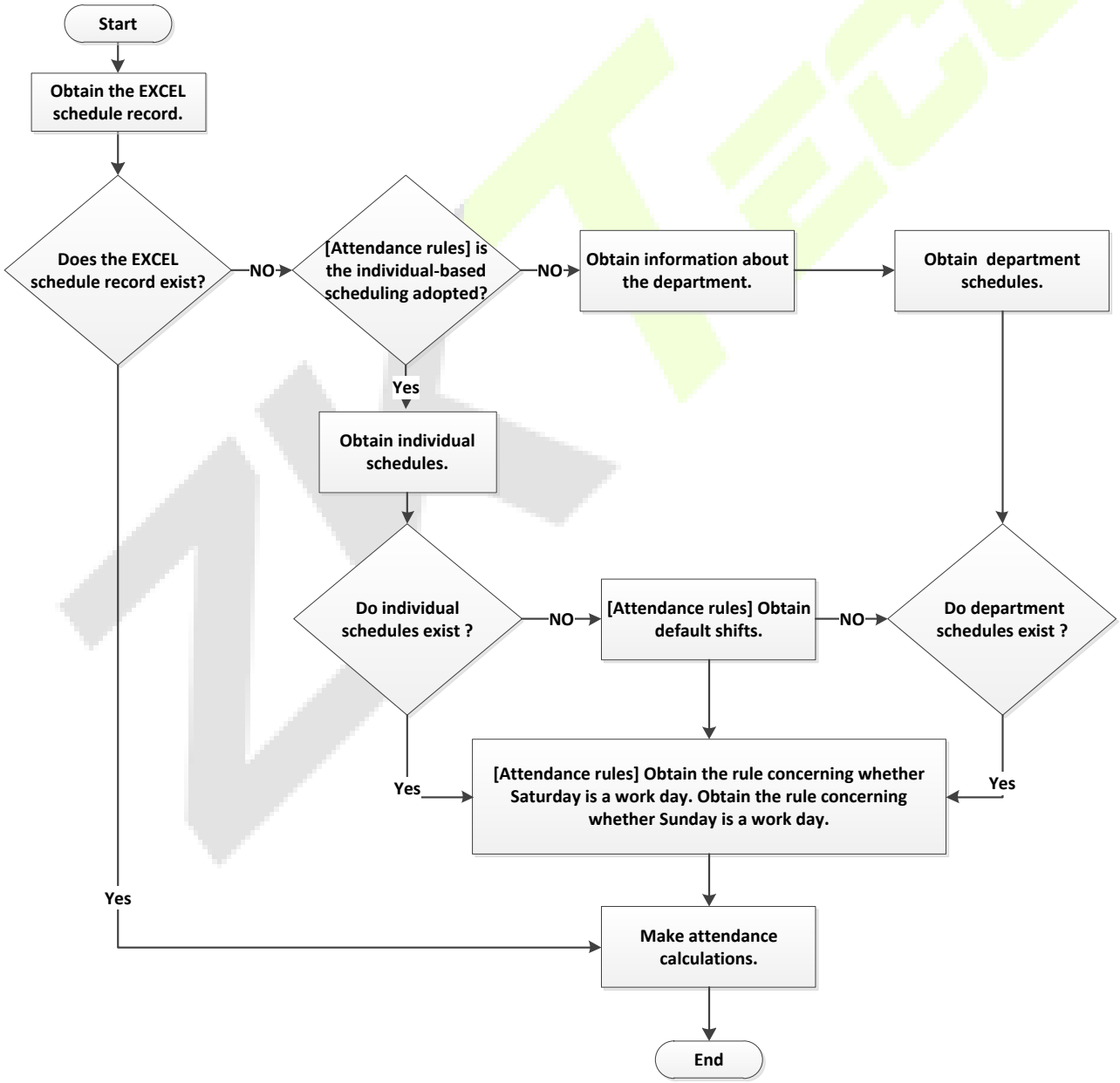
A: No.

2. Can the setting records downloaded from the device be edited on WPS software?

A: Yes. Setting records are supported in Microsoft Office 2003, Microsoft Office 2007, and WPS Office 2012 Personal.

3. What is the attendance calculation flow adopted by the self-service attendance terminal?

A: SSR attendance calculation flow.



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4. How to calculate special overtime hours?

The following cases are deemed special overtime:

a) When an EXCEL schedule record exists and attendance reports are used for attendance calculation, there are check-in and check-out records though there is no schedule (or rest is arranged) for the current date.

b) When no EXCEL schedule record is available, there are check-in and check-out records though Saturday and Sunday are non-working days.

Overtime hours refer to the duration counted from the first check-in time to the last check-out time on the current day.

5. How to arrange schedules using the attendance setting report?

Step 1: Insert a USB flash drive into the USB port or SD card into the SD port of the device and download the Attendance Setting Report.xls to the USB flash drive or SD card.

Step 2: Open the Attendance Setting Report.xls on a computer.

Step 3: Set shifts in the Attendance Setting Report.xls as required.

Attendance Setting Report

Shift						
Number	First time zone		Second time zone		Overtime	
	On-duty	Off-duty	On-duty	Off-duty	Check-In	Check-Out
1	9:00	18:00				
2	9:00	12:00	13:30	18:00		
3	9:00	12:00	13:00	18:00		
4	9:00	12:00	14:00	18:00		

Data enclosed by a red rectangle is new shifts (shift 3 and shift 4). To add a shift, enter a time directly, in the range of 00:00 to 24:00.

Step 4: Arrange schedules for employees.

Date

Schedule Setting Report

Special shifts:25-Ask for leave, 26-Out, Null-Holiday

Schedule date 2012-1-1

ID	Name	Department	Card number	1 SUN	2 MON	3 TUE	4 WED	5 THU	6 FRI	7 SAT	8 SUN	9 MON	10 TUE	11 WED	12 THU	13 FRI	14 SAT	15 SUN	16 MON	17 TUE	18 WED	19 THU	20 FRI	21 SAT	22 SUN	23 MON	24 TUE	25 WED	26 THU	27 FRI	28 SAT	29 SUN	30 MON	31 TUE
1	Joe	company					1	1	1			2	2	2	2	2			25	1	1	1	1			3	3	3	3	3			3	3
3	David	company					2	2	2			1	1	1	1	1			25	3	3	25	3			4	4	4	26	4			4	4
3	Mark	company					3	3	3			2	2	2	2	2			2	2	2	2	2			4	4	4	26	4			3	3
4	Jack	company					25	2	4			3	3	3	3	3			1	1	2	2	2			4	4	4	4				1	1

Holiday Shifts Leave On business

Note: Dates must be set correctly. For example, if the scheduling date is 2012-1-1, the schedule setting report contains the schedules of 31 days after 2012-1-1, that is, the schedule from 2012-1-1 to 2012-1-31. If the scheduling date is 2012-1-6, the schedule setting report contains schedules of 31 days after 2012-1-6, that is, the schedule from 2012-1-6 to 2012-2-5.

Step 5: Insert a USB flash drive into the USB port or SD card into the SD port of the device and upload the *Attendance Setting Report.xls* to the device. Then, the schedules in the *Attendance Setting Report* can be used.

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6. What is the correct time format used in the setting reports?

A. The correct time format is shown in the following table.

Shift No.	First Time Range		Second Time Range		Overtime Range	
	On-duty	Off-duty	On-duty	Off-duty	Check-in	Check-out
1	09:00	18:00				
2	09:00	12:00	13:30	18:00		
3	9:5	18:00				

B. Incorrect time formats are as follows:

a) A time value is beyond the time range, such as 24:00.

b) A time value contains Chinese characters, for example, 9:00, which differs from 9:00.

c) A time value is preceded by a space. As shown in the following table, there is a space in front of 09:00 in shift 1.

Shift No.	First Time Range		Second Time Range		Overtime Range	
	On-duty	Off-duty	On-duty	Off-duty	Check-in	Check-out
1	09:00	18:00				
2	09:00	12:00	13:30	18:00		
3	9:5	18:00				

d) A time value contains special characters, for example, _9:00 and 09:-1.

The device performs a validity check and error tolerance for other formats.

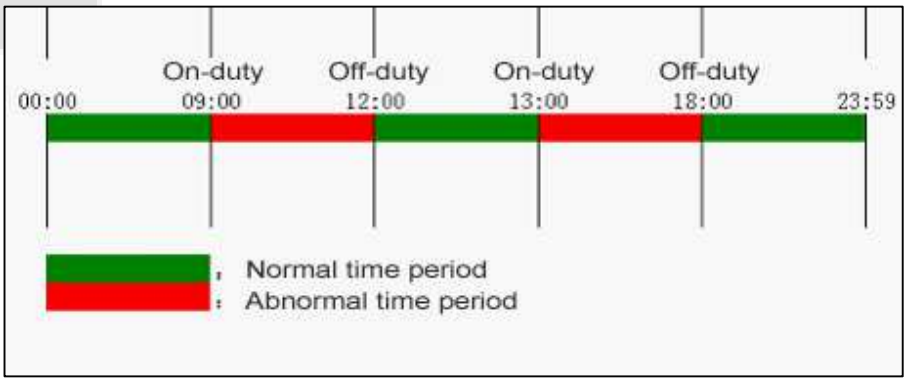
7. How does the self-service attendance terminal collect the correct attendance time based on the preset shift time?

A: The device collects attendance time based on the following principles:

a) Adopt the earliest time for normal attendance and the nearest time for abnormal attendance.

b) Adopt the normal attendance time if the normal attendance time and abnormal attendance time coexist.

c) Adopt a median in the attendance time range.



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B: The following uses four examples to describe the preceding principles.

Example 1: Normal attendance

Attendance Time Range	09:00 — 12:00		13:00 — 18:00			
Attendance time of #1 employee	8:30, 8:35, 11:55,12:01, 12:50, 18:02,19:00					
Statistical result based on attendance rules	8:30	12:01	12:50	18:02		

Description: The attendance time 8:30 and 8:35 are earlier than the on-duty time 9:00 and they are within the normal attendance time range. Therefore, 8:30 is adopted for the on-duty time 9:00 based on the principle of adopting the earliest time for normal attendance. 18:02 and 19:00 are later than the off-duty time 18:00, and therefore, 18:02 is adopted based on the same principle.

Example 2: Late arrival

Attendance Time Range	09:00 — 12:00		13:00 — 18:00			
Attendance time of #1 employee	9:01, 9:04, 12:01, 12:50, 18:00					
Statistical result based on attendance rules	9:01	12:01	12:50	18:00		

Description: Employer 1 checks in for work at 9:01 and 9:04 and he/she is late based on the preset on-duty time. Based on the principle of adopting the nearest time for abnormal attendance, the correct check-in time is 9:01 rather than 9:04 because of 9:01 is nearer 9:00.

Example 3: Early leave

Attendance Time Range	09:00 — 12:00		13:00 — 18:00			
Attendance time of #1 employee	8:50, 11:40,11:55, 12:50, 18:01					
Statistical result based on attendance rules	8:50	11:55	12:50	18:01		

Description: The attendance time 12:50 is adopted based on the principle of adopting a median in the attendance time range. For the attendance time range from 9:00 to 12:00, the normal check-out time range for the off-duty time 12:00 is from 12:00 to 12:30 (that is, 12:00 + (13:00 - 12:00)/2). Therefore, the calculated time of attendance is shown in the preceding table.

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Example 4: Absence

Case 1:

Attendance Time Range	09:00 — 12:00		13:00 — 18:00			
Attendance time of #1 employee	8:50, 12:50, 18:01					
Statistical result based on attendance rules	8:50		12:50	18:01		

Description: The attendance time 12:50 is adopted based on the principle of adopting a median in the attendance time range. For the attendance time range from 9:00 to 12:00, the normal check-out time range for the off-duty time 12:00 is from 12:00 to 12:30 (that is, 12:00 + (13:00 - 12:00)/2). Therefore, the check-out time is blank. The normal check-in time range for the on-duty time from 13:00 is from 12:30 to 13:00. The calculated time of attendance is shown in the preceding table.

Case 2:

Attendance Time Range	09:00 — 12:00		13:00 — 18:00				
Attendance time of #1 employee	8:50, 11:55, 12:20, 18:01						
Statistical result based on attendance rules	8:50	12:20		18:01			

Description: The time 12:20 is adopted based on the principle of adopting a median in the attendance time range. The normal check-out time range for the off-duty time 12:00 is from 12:00 to 12:30 (that is, 12:00 + (13:00 - 12:00)/2). Therefore, the check-out time of the employee is 12:20. The normal check-in time range for the on-duty time from 13:00 is from 12:30 to 13:00. Therefore, the check-in time of the employee is blank. The calculated time of attendance is shown in the preceding table.

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Statement on the Right to Privacy

Dear Customers:

Thank you for choosing this hybrid biometric recognition product, which was designed and manufactured by ZKTeco. As a world-renowned provider of core biometric recognition technologies, we are constantly developing and researching new products, and strive to follow the privacy laws of each country in which our products are sold.

We Declare That:

1. All of our civilian fingerprint recognition devices capture only characteristics, not fingerprint images, and do not involve privacy protection.
2. None of the fingerprint characteristics that we capture can be used to reconstruct an image of the original fingerprint, and do not involve privacy protection.
3. As the provider of this device, we will assume no direct or indirect responsibility for any consequences that may result from your use of this device.
4. If you would like to dispute human rights or privacy issues concerning your use of our product, please directly contact your dealer.

Our other law-enforcement fingerprint devices or development tools can capture the original images of citizen's fingerprints. As to whether this constitutes an infringement of your rights, please contact your Government or the final supplier of the device. As the manufacturer of the device, we will assume no legal liability.

Lastly, we would like to further emphasize that biometric recognition is an advanced technology that will be certainly used in E-commerce, banking, insurance, judicial, and other sectors in the future. Every year the world is subjected to major losses due to the insecure nature of passwords. The Biometric products serve to protect your identity in high-security environments.

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Eco-friendly Operation

The product's "eco-friendly operational period" refers to the time during which this product will not discharge any toxic or hazardous substances when used in accordance with the prerequisites in this manual.

The eco-friendly operational period specified for this product does not include batteries or other components that are easily worn down and must be periodically replaced. The battery's eco-friendly operational period is 5 years.

Hazardous or Toxic substances and their quantities

Component Name	Hazardous/Toxic Substance/Element					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr6+)	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Chip Resistor	×	○	○	○	○	○
Chip Capacitor	×	○	○	○	○	○
Chip Inductor	×	○	○	○	○	○
Diode	×	○	○	○	○	○
ESD component	×	○	○	○	○	○
Buzzer	×	○	○	○	○	○
Adapter	×	○	○	○	○	○
Screws	○	○	○	×	○	○

○ indicates that the total amount of toxic content in all the homogeneous materials is below the limit as specified in SJ/T 11363—2006.

× indicates that the total amount of toxic content in all the homogeneous materials exceeds the limit as specified in SJ/T 11363—2006.

Note: 80% of this product's components are manufactured using non-toxic and eco-friendly materials. The components which contain toxins or harmful elements are included due to the current economic or technical limitations which prevent their replacement with non-toxic materials or elements.

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